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Developing Economies and International Investors:

Do Investment Promotion Agencies Bring Them Together?

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Abstract

Many countries spend significant resources on investment promotion agencies in the hope of attracting inflows of foreign direct investment. Despite the importance of this question for public policy choices, little is known about the effectiveness of investment promotion efforts. This study uses newly collected data on national investment promotion agencies in 109 countries to examine the effects of investment promotion on foreign direct investment inflows. The empirical analysis follows two approaches. First, it tests whether sectors explicitly targeted by investment promotion agencies receive more foreign direct investment in the post-targeting period relative to the pre-targeting period and non-targeted sectors. Second, it examines whether the existence of an investment promotion agency is correlated with higher foreign direct investment inflows. Results from both approaches point to the same conclusion. Investment promotion efforts appear to increase foreign direct investment inflows to developing countries. Moreover, agency characteristics, such as the agency's legal status and reporting structure, affect the effectiveness of investment promotion. There is also evidence of diversion of foreign direct investment due to investment incentives offered by other countries in the same geographic region.

This paper—a product of the Trade Team of the Development Research Department—is part of a larger effort in the department to understand the determinants and consequences of foreign direct investment. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at bjavorcik@worldbank.org.

Developing Economies and International Investors: Do Investment Promotion Agencies Bring Them Together?

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1. Introduction

Countries around the globe compete fiercely for foreign direct investment (FDI). Policy makers believe that FDI can contribute to faster economic growth by bringing capital, technology and know-how to developing countries. Recent empirical evidence suggests that FDI may also lead to positive productivity spillovers to local firms.[1] Given these potential benefits of FDI inflows, an important question for policy makers in developing countries is how to attract foreign investors.

Many governments believe that this can be achieved through investment promotion activities. The purpose of investment promotion is to reduce the costs of FDI by providing information on the host country, helping foreign investors cut through bureaucratic procedures, and offering fiscal or other incentives to international investors. Despite its importance for public policy choices, little is known about the effectiveness of investment promotion efforts. While the existing literature generally finds a positive relationship between investment promotion and FDI, most studies are hampered by a low number of observations, rely on cross-sectional data or focus solely on industrialized economies.[2]

During the past two decades, developing countries began to actively engage in investment promotion and offer incentives to foreign investors. For instance, the 2005 Census of Investment Promotion Agencies (IPAs) revealed that 85 percent of the responding IPAs in developing countries were established in 1980 or later (see Figure 1). Moreover, 68 out of 81 developing countries reported offering financial, tax or other incentives to foreign investors. However, even if some earlier studies suggest that investment promotion appears to work in developed countries, it is unclear whether the same conclusion holds in a developing country context. On the one hand, investment promotion may be more important in the developing world where information is more difficult to access. On the other hand, it is possible that investment promotion may be ineffective due to deficiencies of the business environment or superfluous if low labor costs alone are powerful enough to attract foreign investors.

[1] Recent empirical studies suggest that such spillover may primarily benefit industries supplying multinationals (for empirical evidence see Javorcik, 2004a, Blalock and Gertler, 2007, Javorcik and Spatareanu, 2007; for a literature review see Görg and Strobl, 2001, and Görg and Greenaway, 2004).

[2] See section 2 for the literature review. A related literature evaluates export promotion activities (e.g., Görg, Henry and Strobl, 2007, and Lederman, Olarreaga and Payton, 2006).

This paper contributes to the existing literature on this subject in three ways. First, using a newly collected dataset, it shows that investment promotion activities lead to higher FDI inflows to developing countries. Before this data set became available, it was not possible to analyze this question in a convincing manner in the context of developing countries. Second, the results suggest that the effectiveness of the investment promotion agency is affected by its legal status and the reporting structure. Besides having policy implications, obtaining intuitive results on these more nuanced questions gives us more confidence that the analysis captures the IPA effect rather than other factors. Third, our analysis provides evidence consistent with FDI incentives offered by other IPAs *within a geographic region* diverting FDI inflows. There is no indication of such competition among countries within the same income group but located in different geographic regions.

Our analysis employs the data collected through a recent Census of Investment Promotion Agencies around the world. The Census contains information on investment promotion efforts in 109 countries, representing all income groups and geographic regions. About three quarter of responses pertain to developing countries. A unique feature of the Census is that it includes time-varying information on the existence of an IPA, its status and reporting structure, sector targeting and incentives offered to foreign investors.

Our identification strategy relies on the fact that the majority of IPAs target particular sectors in their efforts to attract FDI. Sector targeting is considered to be best practice by investment promotion professionals (Loewendahl, 2001, Proksch, 2004). It also allows us to identify the effect of investment promotion using the difference-in-differences approach. We compare FDI inflows into targeted sectors, before and after targeting, to FDI inflows into non-targeted sectors, during the same time period.[3] Our analysis is based on US FDI data, disaggregated by host country and sector and available for the period 1990-2004, provided by the US Bureau of Economic Analysis. We control for changes in host country business environment by including country-year fixed effects, for heterogeneity of sectors in different locations by including country-sector fixed effects and for shocks to supply of FDI in particular sectors by adding sector-time fixed effects.

[3] Charlton and Davis (2006) use a similar identification strategy in their analysis of FDI inflows into OECD countries.

Our results suggest that investment promotion efforts lead to higher FDI inflows to developing countries. We find that targeted sectors receive more than twice as much FDI as non-targeted sectors. This magnitude is plausible, given that many sectors receive small amounts of FDI in absolute terms. For instance, in 2004 the median sector-level inflow of US FDI to developing countries in our sample that received some US investment was 11 million dollars. Thus, the increase of 155 percent estimated in our analysis would translate into additional 17 million dollars of FDI.

As sector targeting is a choice of the IPA, the targeting decision could be a response to earlier experience of the sector, which could present a reverse causality problem. However, when we exclude countries that reported in the Census that the targeting decision was based on the past success or failure in attracting FDI to the sector, our results hold. In addition, we find no evidence suggesting that targeting took place in sectors with relatively high or low inflows in the years preceding targeting.

A series of robustness checks supports our conclusions. First, we show that the results hold if we exclude services sectors and utilities. This gives us confidence that our findings are not driven by simultaneous opening to FDI and targeting of services industries where entry of foreign investors was restricted in the past. Second, we demonstrate that controlling for the past stock of FDI does not affect the estimated coefficients. Third, to address the concern that FDI flows may be a poor reflection of actual activities of foreign investors (Lipsey, 2007), we demonstrate that our results hold if we use sales or employment of US affiliates abroad as our dependent variable.

The significant positive effect of investment promotion found in the sector-level analysis is confirmed when we examine country-level data. The information on country-level FDI inflows comes from the IMF *International Financial Statistics (IFS)* covers the 1972-2005 period. In this case, our variable of interest is the existence of an investment promotion agency, deduced from the establishment year reported by each agency. The magnitude of the effect is almost identical to that found in the sector-level exercise.

As we are concerned about the potential endogeneity of IPA existence with respect to FDI inflows, we also use the instrumental variable approach. As our first instrument, we employ the

existence of an export promotion agency (EPA) in the host country in the same year. We exploit the fact that while EPA activities are typically directed at domestic firms, IPAs and EPAs are often established at the same time. Our second instrument is the inflow of foreign aid into the host country which is justified on the grounds that multilateral and bilateral donors tend to co-finance establishment of IPAs and provide support to agencies. The instrumental variable approach confirms our earlier findings.

In the country-level analysis, we also examine a more nuanced question: Are certain types of agencies more successful than others in attracting FDI? The existing case study evidence suggests that quasi-government agencies tend to be more effective than subunits of ministries (Wells and Wint, 2000). Similarly, it is believed that agencies accountable to external entities are more effective than those accountable to a board. The fact that our findings are in line with these predictions gives us confidence that our results reflect the effect of investment promotion efforts rather than some other factors.

To confirm that we are not attributing general policy reforms to investment promotion, we examine the relationship between IPA existence and domestic capital formation. A general reform should affect both domestic investments and inflows of FDI, while investment promotion should only affect inflows of FDI. We find that IPA existence has no effect on domestic investment. This result is robust across a series of specifications, both with and without controls for inflows of FDI.

Further, we investigate whether the effectiveness of investment promotion is sensitive to the local business climate. The data suggest that investment promotion efforts are more effective in developing countries with a good business climate. This is consistent with the view that marketing a country works only if there is a "good product" to sell.

We then turn our attention to an aspect of investment promotion that receives considerable attention from both policy makers and academics, namely FDI incentives. We use time-varying information on the use of five different types of incentives. These are: financial incentives, tax holidays, reduced tax rates, subsidized infrastructure or services, and regulatory concessions. Unfortunately, due to a high correlation between the existence of an IPA and the use of

incentives, it is difficult to distinguish between the two effects. When the existence of investment promotion agency and incentives are included simultaneously, the IPA variable is significant while the incentive variable is not. When the investment promotion variable is excluded, we find statistically significant positive coefficients on tax incentives and subsidized infrastructure or services. The magnitude of the effect is about the same as what we typically find for investment promotion.

Last we focus on the concern of government officials that policies in competing countries might divert FDI inflows. We test this hypothesis by including the number of competing countries that have an investment promotion agency and the number of competing countries that make use of investment incentives in the same time period. We find that competitors' general investment promotion efforts, as proxied by the existence of an IPA, do not lead to diversion of FDI. However, the competitors' investment incentives negatively affect FDI inflows. This suggests that incentives work differently from general investment promotion efforts. The evidence of competition effects is present only when competitors are defined as other countries in the same geographic region, but not when they are defined as other countries at the same income level. The evidence of competition for FDI taking place at the regional level is consistent with practitioners' insight that potential foreign investors first choose a target region, and then choose a country within that region as their investment destination (Bjorvatn and Eckel, 2006).[4]

Our results have several policy implications. First, they suggest that investment promotion is a viable policy option for developing countries with a sound business climate which wish to attract FDI inflows. Second, our results confirm the practitioners' view that subunits of ministries tend to be less effective in attracting FDI than agencies with a more autonomous status and that accountability to an external entity positively affect agencies' performance. Third, our findings on the diverting effect of tax incentives offered by other countries in the same geographic region point to potential benefits of regional coordination in this area.

This study is structured as follows. Section 2 discusses the role of investment promotion and places the study in the context of the existing literature. Section 3 describes the empirical strategy and the data employed. Section 4 presents the results, while section 5 concludes.

[4] Charlton (2003) reviews case studies on competition in incentives and finds it to be the strongest between close neighbors with similar economic conditions and factor endowments.

2. *Literature review*

2.1 What is investment promotion?

Wells and Wint (2000) define investment promotion as activities through which governments aim to attract FDI inflows. These activities encompass: advertising, investment seminars and missions, participation in trade shows and exhibitions, distribution of literature, one-to-one direct marketing efforts, facilitating visits of prospective investors, matching prospective investors with local partners, help with obtaining permits and approvals, preparing project proposals, conducting feasibility studies and servicing investors whose projects have already become operational. Their definition of promotion excludes granting incentives to foreign investors, screening potential investment projects and negotiations with foreign investors, even though some IPAs may also be engaged in such activities.

Investment promotion activities can be grouped into four areas: (i) national image building, (ii) investment generation, (iii) investor servicing, and (iv) policy advocacy. Image building activities aim to build a perception of the country as an attractive location for foreign direct investment. Investment generation involves identifying potential investors who may be interested in establishing a presence in the country, developing a strategy to contact them and starting a dialogue with the purpose of having them commit to an investment project. Investor servicing involves assisting committed investors in analyzing business opportunities, establishing a business and maintaining it. Policy advocacy encompasses initiatives aiming to improve the quality of the investment climate and identifying the views of private sector in this area (Wells and Wint, 2000).

2.2 How can investment promotion affect the decision process of a potential investor?[5]

A company that has decided to engage in FDI usually starts the process of selecting the investment location by drawing a long list of potential host countries. The list is put together by the company executives or by a consulting firm hired for the purpose of site selection. The long

[5] This subsection draws on MIGA (2006) and the authors' interviews with former professional consultants assisting companies in establishing facilities abroad.

list typically includes 8 to 20 countries which can be thought of as belonging to three groups: (i) most popular FDI destinations in the world, (ii) countries close to the existing operations of the investor, and (iii) emerging FDI destinations (that is, countries that the investor may not be initially very serious about but which represent "out of the box" thinking). The inclusion of the third category presents an opportunity for IPAs. The potential investor or the consulting firm working on its behalf is likely to include in the third group countries whose advertisements they have recently seen in international media, countries whose IPAs have recently approached them or their colleagues, or countries whose IPA representatives they have met at conferences and industry fairs.[6]

Based on the trade-off between costs and the quality of business environment, the long list is narrowed down to a short list of up to 5 potential host countries. This is usually done without visiting the potential host countries, so the accessibility of the information about the business conditions in a host country plays a crucial role. IPAs that provide up-to-date, detailed and accurate data on their websites and IPAs that are willing to spend time preparing detailed answers to investors' inquiries and customize these answers to the needs of an individual investor can increase the chances of their countries being included in the short list.

The next step in the decision-making process involves visiting the countries included in the short list. This can be done by the potential investor, consultants or both. Multiple sites in each country may be visited. A visit often involves interactions with an IPA which has the opportunity to emphasize the advantages of locating in its country, answer questions, show executives potential investment sites or introduce them to potential local business partners.

In the final stage of the process, the foreign investor chooses an investment location based on the availability of potential sites, costs, the overall quality of business climate and availability of incentives. An IPA can assist in providing information on incentives and offering help with the registration process.

[6] For instance, the Polish IPA believes that TV advertising spots increased the number of visitors to its website by 43 percent in 2006 (source: *Dziennik online*. "Wielka promocja rozpoczeta. Polska jak proszek do prania" December 29, 2006. http://www.dziennik.pl/Default.aspx?TabId=97&ShowArticleId=26406).

As evident from the above outline, IPAs can play a significant role in the selection process of FDI sites. The national IPA is often the first entity which a potential investor contacts to obtain information. Absence of an IPA not only increases the investor's cost of gathering information but also sends a negative signal suggesting that the country is not interested in attracting FDI. It may constitute a reason to eliminate a location during the selection process.

2.3 Rationale for public support of investment promotion

The theoretical justification for public support for investment promotion is based on a market failure. Potential foreign investors must incur a cost to gather information about potential returns available in alternative investment locations. This cost may be higher in a developing country context where published statistics and other information sources are scarce. As argued by Greenwald and Stiglitz (1986), markets for information are fundamentally different from other markets, and in the presence of imperfect information they may not produce Pareto efficient outcomes. The information cost may also be increased by local firms and other foreign investors operating in the location who may have an incentive to restrict information flows in order to prevent the entry of potential competitors. By disseminating information about potential investment opportunities, an IPA can enhance the availability of information to potential foreign investors and facilitate more efficient capital allocation.

The second reason governments may want to subsidize investment promotion is due to positive externalities associated with FDI inflows. There is a large literature arguing that foreign direct investment may result in knowledge spillovers to the domestic industry. As foreign investors do not take into account this externality when making their decisions, they will provide less than the socially optimal level of FDI. Public intervention is then needed to increase the amount of investment to the socially optimal level.[7]

2.4 Existing literature on effectiveness of investment promotion

Despite widespread implementation of investment promotion around the world, little is known about how effective these policies are. Pioneering work by Wells and Wint (2000), based on case studies and a very limited econometric analysis, found a positive correlation between investment promotion and the level of FDI per capita. Subsequent work by Morisset (2003) and Morisset and

[7] For a detailed discussion of reasons why countries may choose to subsidize FDI see Hanson (2001).

Andrews-Johnson (2004) also concluded that IPAs appear to play a useful role in attracting FDI. However, all three studies were based on cross-sectional data and a very small number of observations (between 36 and 58).

Contributions studying FDI inflows into the US have relied on more detailed data and employed a more rigorous methodology. Head, Ries and Swenson (1999) estimated a location choice model on a sample of 760 Japanese manufacturing establishments in the US between 1980 and 1992. In addition to agglomeration factors and other controls, the authors examined the effects of profit taxes, factor subsidies, the existence of a foreign trade zone in the state, the use of unitary taxation by the state, and the presence of an investment promotion office in Japan. They did not find a significant effect of investment promotion offices in Japan. Bobonis and Shatz (2007) analyzed determinants of the FDI stock in US states from eight source countries using Arellano-Bond dynamic panel data estimator. They measured investment promotion with the number of years a state had a full-time state trade or investment office in each of the eight countries. They found that a one-percent increase in the number of years with an investment office increased the FDI stock by between 0.14 and 0.27 percent. In their sample, the latter figure corresponded to a one million USD (at the median) or a 2.6 million USD (at the mean) increase in the value of the FDI stock.[8]

The most rigorous analysis to date performed in a multi-country setting was done by Charlton and Davis (2006). The authors focused on the question of whether IPAs have been more successful in attracting FDI inflows into industries they explicitly target. Industry-level data on FDI inflows into 19 industries in 22 OECD countries during the 1990-2001 period combined with information on targeted industries collected through a survey of IPAs provided the basis for their study. Using propensity score matching and the difference-in-differences specification, the authors found that targeting of an industry increased the growth rate of FDI inflows into that industry by 41 percent.

This study extends the existing literature in several directions. First, it applies a rigorous approach, similar to that pioneered by Charlton and Davis (2006), to a large sample of developed and developing countries. As mentioned before, little is known about the effectiveness of investment promotion in developing countries. One could argue that investment promotion could

[8] The literature on location determinants of FDI in the US goes back to at least the 1980s. See Bobonis and Shatz (2007) and Coughlin and Segev (2000) for a review.

be more effective in the developing world due to scarcity of detailed information on the prevailing business conditions, rules and regulations and due to high costs of gathering such information. Alternatively, one can argue that in developing countries lacking a "good product to market" (i.e. good business climate), investment promotion efforts may be a waste of resources, while in developing countries with an acceptable business environment low labor costs may be attracting FDI inflows even in the absence of investment promotion. Second, this study examines whether the status and the reporting structure of investment promotion agencies matter for their effectiveness. Third, our analysis goes beyond the existing literature by examining the effect of regional competition in FDI incentives.

3. Empirical strategy and data

3.1 Empirical strategy

Our empirical analysis will rely on two datasets: (i) country-sector panel data and (ii) aggregate country-level panel data. The basic empirical specification in the sector-level analysis is

$$\ln FDIflow_{cit} = \alpha_1 + \beta_1 Sector\_targeted_{cit} + \gamma_{ci} + \gamma_{ct} + \gamma_{it} + \varepsilon_{cit}$$

The dependent variable is the log of inflow of foreign direct investment into sector i in country c at time t. $Sector\_targeted_{cit}$ equals one if country c targets sector i at time t and zero otherwise. γ_{ci}, γ_{ct} and γ_{it} are country-industry, country-time and industry-year fixed effects, respectively.

The question of interest is whether targeted sectors receive higher FDI inflows in the post targeting period (relative to pre-targeting period and non-targeted sectors). Note that time-invariant characteristics that differentiate sectors chosen for targeting from other sectors will be captured by country-sector fixed effects. Shocks common to all sectors in a particular country in a particular year will be captured by country-year fixed effects. Shocks affecting supply of FDI in a particular sector will be controlled for by sector-year fixed effects. The model will be estimated on a sample of countries that have or have not practiced sector targeting. Narrowing the sample to only countries engaged in targeting does not change the conclusions of the study.

In the aggregate analysis, we will estimate the following model:

$$\ln FDIflow_{ct} = \alpha_2 + \beta_2 IPA_{ct} + X_{ct}\theta + \psi_c + \psi_t + \varsigma_{ct}$$

where the dependent variable is the log of aggregate inflow of foreign direct investment into country c at time t. IPA_{ct} equals one if country c had an investment promotion agency at time t

and zero otherwise. ψ_c and ψ_t are country and year fixed effects, respectively. X_{ct} includes time-varying country controls. All variables and their sources are described in section 3.3.

3.2 Econometric issues

Identifying the relationship between investment promotion efforts and FDI inflows poses several challenges. Perhaps the most important challenge is establishing the direction of causality. It could be argued that the choice of sectors to be targeted is endogenous; IPAs could be targeting sectors which already experienced high inflows. In our sector-level analysis, which compares FDI inflows to targeted and non-targeted sectors pre- and post-targeting, we use four different strategies to deal with the potential reverse causality. First, we include country-industry fixed effects, which take out unobserved time-invariant characteristics specific to country-industry combinations. If, for example, the mining sector in South Africa was chosen for targeting because of the endowment of gold and this endowment is also the reason for large FDI inflows into the sector, this is controlled for by the country-sector fixed effect. Second, we show that our results are robust to a specification with first, second and third lags. A change in FDI inflows is unlikely to explain a change in policy which precedes it, although the strategy is not robust to forward looking behavior of policy makers. Third, we investigate if the sectors targeted were different from other sectors in the years before the targeting started. We find no evidence of relatively successful or unsuccessful sectors being chosen for targeting. Fourth, as IPAs were asked in the Census about the reasons behind targeting a particular set of sectors, we show that the results hold even if we exclude targeted sectors in countries that made targeting decisions based on the past success or failure in attracting FDI to that sector.

The measures described above do not address the theoretical possibility that IPAs know which sectors will attract a lot of FDI in the future and choose to target them to show results. In the Census, IPAs were asked about who decided which sectors to target.[9] The incentive to target sectors that already have high expected FDI inflows may have been present at the agency board level, but it is harder to make the same case for the other entities. Of the 97 agencies that responded, only 6 said the decision was entirely left to the agency board, 24 reported the board having some input into the decision, and 67 said the agency board was not at all involved in the

[9] The entities involved in the decision were: president's office, prime minister's office, ministry of foreign affairs, ministry of finance, ministry of industry, ministry of commerce, agency board or the decision was based on a national strategy plan. In some cases, several entities were involved.

decision. Since the majority of the countries in the sample responded that the agency board was not involved in the choice of sectors, we do not view this possibility as a cause for concern.

In the analysis based on aggregate data, where we use the existence of an IPA as our investment promotion variable, we follow three approaches to deal with the potential reverse causality problem. The first approach is to attenuate the problem by including country fixed effects and lagging the IPA indicator by one or more periods. The second approach is instrumental variables estimation, where information on the existence of an export promotion agency and the amount of foreign aid are used as instruments. The third approach is to ask more nuanced questions such as: Does an IPA's independence and reporting structure matter for its effectiveness in attracting FDI? As it is not clear why the amount of FDI inflows should affect the type of an agency being created or a change in the agency status or reporting structure, these results give us more confidence that the causality goes from investment promotion to inflows and not the other way around, especially because the findings are consistent with the conclusions of the case study literature.

The second challenge in our analysis is to distinguish the effect of an IPA from other changes in policies (or anything else relevant for FDI inflows) occurring at the same time. In the sector-level analysis, we address this challenge by including country-year fixed effects which capture country-specific factors that may influence FDI inflows at a particular point in time. For instance, if country c started special investment promotion efforts in the automotive sector in year t and at the same time simplified registration procedures for foreign investors, to the extent that the latter reform affected all sectors equally, it would be captured by the country-year fixed effect. We also include sector-time fixed effects to capture factors affecting worldwide supply of FDI in a particular sector at a particular point in time. These fixed effects capture global unobserved sector-specific shocks. For example, if international investors suddenly decided to increase investments in the ICT sector, and a country at the same time started targeting the ICT sector, the investment promotion variable could capture the global shock rather than the country's promotion efforts. Inclusion of sector-year fixed effects takes care of this possibility.

In the country-level analysis, we include controls for various aspects of the business climate in the host country and other typical FDI determinants used in the literature. We also show that the existence of an IPA does not affect domestic investment. As most policy changes would tend to influence both domestic and foreign investment, this gives us more confidence in our results.

The third challenge is to distinguish between general investment promotion (information provision, image building, help with red tape etc.) and tax incentives. There is a high correlation between IPA existence and tax incentives, which unfortunately prevents us from separating the two effects with confidence.

3.3 Data

Our data on investment promotion activities come from the 2005 Census conducted by the World Bank's Research Department in cooperation with the Foreign Investment Advisory Services, the Multilateral Investment Guarantee Agency and the World Association of Investment Promotion Agencies. An electronic survey was sent out to all national investment promotion agencies around the world. After several weeks reminder e-mails were sent out, and after some more weeks phone calls were made to increase the likelihood of response. As the survey forms came in, the data were carefully checked for inconsistencies and missing information. Then new rounds of phone calls were made to clarify inconsistencies and complete the data. The survey was sent out in December 2005, and by April 2006 most of the information was complete. The survey form gave uniformity needed for comparison across countries, while the information collected through the phone calls provided guidance on interpretation of the responses. This comprehensive process yielded responses from 109 national investment promotion agencies. Additionally, we found detailed information on the activities of the Austrian IPA, which did not respond to the Census, on its website. The sample covers countries across all geographic regions as well as all income levels. Eighty-one of the responses received were from developing countries. The sample also includes additional 31 countries that we regard as very likely to not have an investment promotion agency. These were identified by their absence in different directories of IPAs, lack of websites, by confirmation of national embassies/other national public institutions or by consultations with World Bank country economists.[10]

A potential concern is that high quality agencies are overrepresented in the sample due to self-selection. We cannot rule out this possibility completely, but a glance at our sample reveals a wide representation of countries across all income groups and regions. Also our experience from collecting the data suggests the opposite. Some developed countries were among the hardest to

[10] The actual number of countries included in the empirical analysis depends on the availability of other variables included.

obtain answers from, while countries in, for example, Sub-Saharan Africa were often extremely helpful in providing as extensive and precise information as possible. One explanation could be the opportunity cost; officers of IPAs in developed countries often appeared to be more busy and harder to contact. Therefore, it is not clear which way a potential sample bias would work. If anything, it could make investment promotion appear less efficient than it actually is.

In the design of the survey, special attention was given to collecting time-varying information. While this increased the effort needed to collect the data, it also allowed for the use of panel estimation techniques and made it possible to control for time-invariant country-specific unobservable factors. Attention was also given to sector-specific time-varying measures of investment promotion. The agencies were asked if they targeted specific sectors and when targeting started and ended.

The Census also included questions on more subtle characteristics of the agencies. For instance, IPAs were asked about their legal status (sub-unit of ministry, autonomous public body, semi-autonomous agency reporting to a ministry, joint public-private entity, private entity), and if the status had changed, when the change happened and what the status was before the change. Additionally the Census included a question asking to whom the agency was accountable and how long they had been reporting to the overseeing entity.

Investment incentives were another aspect of investment promotion covered in the Census. Despite the attention received by investment incentives, to the best of our knowledge, a database with broad cross-country and cross-time coverage of investment incentives offered does not exist. Collection of such data in itself represents a contribution to the FDI literature.

Parallel to the survey on investment promotion, Lederman, Olarreaga and Payton (2006) collected information on export promotion agencies. Data on the date of establishment of an export promotion agency are used in our study as an instrument for the existence of an investment promotion agency in a country, since establishment of these two types of agencies have often been a part of a more active internationalization strategy of governments. At the same time, the exclusion restriction, that the existence of an export promotion agency should not be included directly in the equation explaining FDI inflows, should be fulfilled, since export promotion agencies primarily help domestic firms.

FDI data for the sector-level analysis are supplied by the US Bureau of Economic Analysis (BEA). These data give the stocks of US FDI abroad.[11] We use the first difference of the stocks to calculate flows. BEA publishes information on 13 sectors until 1998 and 15 sectors from 1999.[12] We made two changes to the BEA data. We aggregated "Other manufacturing" and "Other industries" into one sector in the pre-1999 data, and "Machinery" and "Computer and electronic products" into one sector in the post-1998 data. The second change was to match sectors over time. Due to a break in the aggregation in 1998 in the BEA data, sector definitions are not exactly the same during the entire period (1989-2004). As our identification strategy is to follow sectors over time and test if post-targeting inflows are significantly higher than pre-targeting inflows (and inflows to non-targeted sectors), we would like to have long time periods before and after targeting. As the break in aggregation appeared around the middle of the period, we would typically have either very few years pre-targeting or very few years post-targeting had we not implemented the matching procedure.

After these two changes, we match BEA sectors to the sector classification used in the Census to collect targeting information. See Table 1 for the concordance and Figure 2 for summary statistics on sectors that are most frequently targeted. We have a maximum of 15 sectors per country. The stock data are available from 1989-2004 (first differenced for 1990-2004). Table 2 shows the 124 countries included in sector sample.[13] For additional statistics on the sectors see Table 3 and Table 4.

The US is one of the top FDI source countries, so focusing on US FDI we capture a large share of the world's FDI stock. Figure 3, which compares the stock of US FDI to the stock of FDI from other OECD countries in 2000, demonstrates that US was the dominant source country in Latin America, East Asia and industrialized economies. An additional advantage of using the BEA data

[11] U.S. direct investment abroad is defined as the ownership or control, directly or indirectly, by one US resident of 10 percent or more of the voting securities of an incorporated foreign business enterprise or the equivalent interest in an unincorporated foreign business enterprise. The data capture the cumulative value of parents' investments in their affiliates (source: http://www.bea.gov/bea/ai/0395iid/maintext.htm). Data points suppressed by the BEA for confidentiality reasons are treated as missing. Data points reported as values belonging to the range between -500,000 and 500,000 US dollars are treated as equal to 500,000 dollars. We interpolated missing information on stocks to increase the number of observations.

[12] From 1999, the BEA-data are classified under the 1997 North American Industry Classification System (NAICS). Previously, data were classified under the Standard Industrial Classification System (SIC).

[13] The number of 124 countries corresponds to the baseline specification in Table 9.

is their comparability across countries and access to figures on sales and employment of US affiliates abroad. We use the latter figures in our robustness checks.

In the aggregate analysis, flow data from the IMF *International Financial Statistics* are used. The IMF data capture inflows of FDI to each country from any country in the world. The aggregate analysis covers the period 1972-2005. Table 2 and its footnotes lists the 128 countries that are included in the aggregate analysis.[14]

In both the analysis based on BEA sector data and in the analysis based on IFS aggregate data we use the log of FDI inflows as our dependent variable. To deal with zeros we add one US dollar to all observations before taking logs. To deal with negative values we follow Blonigen (2004) and Eichengreen and Tong (2005) and set all negative values to 0.1 US dollar before taking logs.[15]

We follow the literature on FDI determinants (e.g. Wheeler and Mody, 1992; Javorcik, 2004b) and control for market size, labor costs, macroeconomic stability and business climate. Purchasing power of local consumers is measured as the log of GDP per capita. This variable could also be interpreted as a proxy for labor costs; thus the expected sign on the coefficient could be either positive or negative. Market-seeking FDI would be attracted to countries with high purchasing power, while FDI with the intention of cutting production costs is more likely to flow to countries with lower wage cost. GDP growth and the log of population size are proxies for the potential market size, and a positive coefficient is expected on these variables. The GDP and population variables are from the World Bank's *World Development Indicators* (WDI).[16] The inflation rate, provided by the IMF *International Financial Statistics*, is a proxy for macroeconomic stability. High inflation indicates an unstable macroeconomic environment and

[14] The number of years differs across countries, and the number of observations differs across econometric specifications due to the availability of control variables. The figure of 128 refers to relevant countries (countries from which we got a response, for which IPA existence could not be confirmed, or for which we know that they do not have an IPA) with FDI data in IFS.

[15] As we were concerned about a significant number of cases with zero investment, we also used the Tobit specification including regional rather than country fixed effects. The Tobit results confirmed our findings. This was true both when the lower censoring limit for the dependent variable was set to log(1) and log(0.1), which corresponds to zero and negative FDI inflows, respectively. As a robustness check in the sector-level data, we also estimated the models from Table 9 without distinguishing between zeros and negative FDI flow values (i.e. we set both zero and negative values to 0.1 before taking logs). The effect of targeting was significant at the 1% level for all the specifications in the developing country sample (the coefficient varied between 1.018 and 1.454).

[16] http://publications.worldbank.org/WDI/

thus we expect a negative coefficient. As measures of political institutions and business climate we use an index of civil liberties from Freedom House (available from 1972-2004).[17] It ranges from one denoting the most-free countries to seven denoting the least-free countries. A negative coefficient is, therefore, expected. The political risk rating provided by the International Country Risk Guide (ICRG), available for 1984-2006, is also used.[18] A positive coefficient is anticipated since the variable ranges from 0 to 100, where 0 means very high political risk and 100 very low political risk.

In some specifications, we use gross capital formation or gross fixed capital formation as the dependent variable. Both variables come from IMF's *International Financial Statistics*. In the instrumental variable approach, we use information on aid inflows per capita (in current US dollars) and official development assistance and official aid (in current US dollars), both from the WDI. To test whether the effect of investment promotion depends on the quality of the business environment, we use measures compiled by Kaufmann, Kraay, and Mastruzzi (2006). Unfortunately, these measures are available only for the years 1996, 1998, 2000, 2002-2005.[19]

The summary statistics are presented in Tables 5 – 8.

4. Results

4.1 Sector-level analysis

We start our investigation of the effectiveness of investment promotion efforts with a sector-level analysis. Our identification strategy relies on the fact that most IPAs focus their efforts on a certain number of priority (target) sectors.[20] Sector targeting is viewed by investment promotion practitioners as best practice as it is believed that more intense efforts concentrated on a few priority sectors are likely to lead to greater FDI inflows than less intense across-the-board attempts to attract FDI. Targeting means engaging in the standard investment promotion activities, such as image building, investment generation, investor servicing and policy advocacy (see subsections 2.1 and 2.2), but applying them to a selection of industries rather than to foreign

[17] http://www.freedomhouse.org/. The results are also robust to using political rights from Freedom house.
[18] http://www.icrgonline.com/
[19] http://info.worldbank.org/governance/kkz2005/pdf/2005kkdata.xls
[20] 86 IPAs, out of the 104 responding to the question on sector targeting, answered that they were using sector targeting or had done so in the past. Of these, 56 gave complete timing of the targeting efforts towards at least one sector and we were able to include these targeted sectors in the sample. We did not include in the sample targeted sectors for which we did not have complete timing.

investors in general. Thus, an IPA not engaged in targeting will promote its country as a good place to do business, while an IPA targeting particular sectors will emphasize why its country is an ideal location for investors operating in these industries. Similarly, the former IPA will attend many different types of fairs and conferences while the latter will present only at events specific to the industries it aims to attract. The idea behind targeting is that a more focused message tailored and delivered to a narrow audience will be more effective than general investment promotion activities.

Taking advantage of information on sectors targeted by IPAs (if any), we use the difference-in-differences approach and examine whether sectors targeted by IPA receive more FDI inflows in the post-targeting period relative to the pre-targeting period and non-targeted sectors. Our goal is not to check whether countries with IPAs engaged in sector targeting receive more FDI than countries that do not follow this approach. Rather, targeting is used as a convenient identification strategy that allows us to ask whether IPAs are successful at bringing the type of FDI they are meant to attract.

The estimated specification includes a set of controls. To take into account heterogeneity across sector-country combinations, we include sector-country fixed effects. Rather than including explicit country-level controls, we include in the specification country-year fixed effects. These control for *all* country-specific changes taking place over time. To the extent that changes in the host country policies, regulations and other factors affect FDI inflows to all sectors in the same way, country-year fixed effects will capture them. It is also possible that some global shocks affect the supply of FDI in a particular sector. To take this into account, we add sector-year fixed effects. To the extent global shocks affect flows of FDI in a particular sector in the same way across countries, they will be captured by sector-year fixed effects.

The results, presented in Table 9, suggest that investment promotion efforts are associated with higher FDI inflows to developing countries. The coefficient on the dummy for a sector being targeted is positive and statistically significant in the developing country subsample. In the full sample, contemporaneous targeting does not appear to matter. In the post-targeting period, targeted sectors in developing countries appear to receive 155% higher FDI inflows (column 5). This effect is statistically significant at the 1% level.

While the magnitude of the effect may seem large, it is not implausible. Many sectors experience zero and close to zero inflows, and if we consider only positive flows of US FDI, the median 2004 value is 21 and 11 million dollars in the full and the developing country sample, respectively. Thus, the estimated 155% percent increase would mean an additional annual inflow of 17 million dollars for the median sector-country observation in the developing country subsample.[21] A quick look at the amounts multinational corporations actually invest in developing countries reveals that FDI inflows of that magnitude are not uncommon. For example, in 2005 Wal-Mart planned to open 70 new units in Mexico with an expected investment of USD 736 million[22] and in 1995 Pepsi announced a USD 55 million investment in a snack-food company in South Africa,[23] Boeing McDonnell Douglas invested USD 31 million in the Czech Republic in 1998.[24]

It is reasonable to expect that some time is needed before the full effect of targeting materializes. Therefore, Table 9 also includes specifications with the targeted variable lagged by one, two or three periods. Another, already mentioned, positive aspect of using lagged values is that they attenuate potential concerns about endogeneity. We find positive and significant effects of lagged targeting in all specifications estimated, both in the full sample and for developing countries. Lagging appears to make the results stronger.

To investigate the possibility that our results are driven by reverse causality–that is investment inflows determine subsequent targeting rather the other way around– in Table 10 we include a dummy variable taking the value of one for targeted sectors in the years *before* targeting started and zero otherwise. In different specifications, we consider one year before the start of targeting (column 1 and 5), two years (2 and 6), three years (3 and 7) and four years (4 and 8).[25] A positive and significant coefficient on the dummy would indicate that sectors receiving higher FDI inflows were the ones subsequently chosen for targeting. In other words, it would indicate that the investment promotion agencies were picking successful sectors as their priority sectors and thus

[21] The median value of 11 million dollars pertains to those country-sector combinations, included in the regression presented in column 5 in Table 9, which received a positive amount of US FDI in 2004. The figure of 155% is based on the estimate reported in the same column.
[22] http://walmartstores.com/GlobalWMStoresWeb/navigate.do?catg=379
[23] http://query.nytimes.com/gst/fullpage.html?res=990CE0DF1430F931A15755C0A963958260
[24] http://www.factbook.net/countryreports/cz/cz_fdi_us.htm
[25] Thus, for instance, if country c decided to target sector i in year 2000, the dummy will take on the value of one in 1999 (columns 1 and 5), in 1998 and 1999 (columns 2 and 6), etc., and zero in all other years.

our earlier findings would reflect this selection process rather than the effectiveness of investment promotion activities. However, the results presented in Table 10 suggest that this was not the case in the developing country subsample. In none of the four specifications, does the dummy appear to be statistically significant. The coefficients on the targeting variable remain positive and significant. The F-test included in the two lower rows of the table suggests that there is a statistically significant difference between the dummy and the targeting variable. In contrast, in the full sample, the two effects are not different from each other and the targeting variable is not statistically significant.

In Table 11, we present the results from a probit regression modeling the determinants of sector targeting. The dependent variable is equal to one if country c begins targeting industry i at time t, and zero if the industry is not targeted at time t.[26] The purpose of the exercise is to find out whether past FDI inflows or FDI stocks in industry i in country c (lagged one, two or three periods) can predict future targeting of the industry. The model also includes controls for country characteristics as well as country and year fixed effects.[27] In only one of twelve specifications, we find a significant coefficient on the FDI variable. The coefficient bears a negative sign which suggests that, if anything, developing countries chose for targeting sectors with lower FDI flows.

As another robustness check, we remove from the sample observations for targeted sectors in countries where the investment promotion agencies reported in the Census that the choice of priority sectors was based on the earlier success in attracting inflows to those sectors or the lack thereof. As seen in Table 12, removing these countries leads to a stronger rather than weaker effect of the investment promotion efforts.

4.2 Sector-level analysis – additional robustness checks

A potential concern is that our findings could be driven by simultaneous opening to FDI and targeting of services industries where entry of foreign investors was restricted in the past. To eliminate this possibility, we exclude from the sample services sectors and utilities and show that this change does not affect our findings (see Table 13).

[26] Thus observations for targeted sectors in years other than the first year of targeting are not included in the sample.
[27] See table notes for the list of control variables.

As agglomeration effects may be important in attracting FDI, we include the lagged FDI stock in the sector in Table 14. This additional control variable is not statistically significant and its inclusion does not affect our results.

To address the concern that FDI flows may be a poor reflection of actual activities of foreign investors, as suggested by Lipsey (2007), we demonstrate that our results hold if we use sales or employment of US affiliates abroad as our dependent variable. To save space, we present only results for the developing country subsample. When sales are used, the magnitude of the effect is very similar to that found in the baseline specification. When employment figures are considered, the size of the effect halves (see Table 15).

The choice of the control group is an important consideration. In our analysis, we have compared targeted sectors before and after targeting with sectors that were not targeted. A potential concern is that inclusion of a large number of low performing (in terms of FDI inflows) sectors could amplify the effect of targeting and thus exaggerate its effect. To evaluate this concern we estimate the effect of targeting on the subsample of 56 countries that targeted at least one sector during the period covered by our analysis (for the list see Table 3). These results are not shown, but the estimated coefficient on the targeting variable is positive and significant at the 1% or 5% level for the subsample of developing countries.[28]

In sum, our results suggest that investment promotion efforts are associated with higher FDI inflows to targeted sectors in developing countries. The results are robust to a large number of specifications, and the available evidence suggests that they are unlikely to suffer from reverse causality problems. The findings for the combined sample of developing and developed countries are less clear. Therefore, we are hesitant to comment on the effectiveness of investment promotion efforts in a developed country context.[29]

[28] More specifically, we estimated the baseline specifications from Table 9 on the sample of 56 countries which gave us detailed timing information. The coefficient on the targeting variable in the developing country subsample varied between 0.767 and 1.244.

[29] When we focus on the subsample of developed countries we fail to detect any positive effect of investment promotion.

4.3 Country-level analysis

The next part of our analysis focuses on aggregate FDI flows and examines whether the existence of an investment promotion agency affects the amount of investment received by all sectors in a given country. There are several reasons for extending the analysis to the aggregate level. First, the information on sector targeting could be plagued by measurement errors. Employing an alternative measure of investment promotion activities reduces the possibility that the results are affected by measurement error, as obtaining information on the year of IPA establishment is more straightforward than cataloguing targeting information. The second reason for looking at aggregate data is that aggregate FDI figures are available for a longer time span (we go back to the year 1972 as opposed to 1990 in the case of sector-level information). Similarly, we can consider a larger number of countries than in the sector-level analysis where we are forced to discard countries with incomplete targeting information. Third, the detailed information on the status and reporting structure of the agencies obtained in the Census allows us to focus on more nuanced questions and thus can give us more confidence that we are picking up the IPA effect.

The aggregate analysis confirms the finding of the sector-level analysis. In Table 16, we start with a specification with host-country fixed effects, time fixed effects and control variables. The variable of interest is a dummy taking on the value of one if a host country has an IPA at time t and zero otherwise. As before, we find that developing countries engaged in investment promotion receive about two and a half times higher FDI inflows than developing countries not having an IPA. The estimated coefficients are statistically significant at the 1% level and are very much in line with the estimates based on the sector-level data. When developed countries are included in the sample, we find a positive effect when the IPA variable is lagged one and two periods but not in the other two specifications, which again mirrors our overall conclusions from the previous section. An alternative specification where investment promotion efforts are measured by the number of years an IPA has been in existence (and its square) leads to the same conclusions.

The estimated effects of the control variables broadly conform to our expectations. We find that countries experiencing faster GDP growth tend to attract more FDI. The expected sign on the per capita GDP is ambiguous, since this variable can be seen as a measure of the purchasing power of local consumers (thus implying a positive relationship for market seeking FDI) or a proxy for

labor costs (thus implying a negative relationship for efficiency seeking FDI). The estimated negative effects might indicate that the latter effect dominates. Population size could be viewed as a proxy for the potential market size of the host country. The fact that we find a negative effect is somewhat surprising and can perhaps be explained by the inclusion of country fixed effects which capture the average country size over the period. Even though the population size tends to change little over time, significant changes are likely to take place during the 30-year period covered by our study. As population growth tends to decrease with economic development, the negative sign could be a reflection of high population growth being correlated with poor performance in other areas of economic performance. As anticipated, we find that countries experiencing macroeconomic instability (as proxied by high inflation) receive less FDI. Restrictions on civil liberties do not appear to matter in the developing country subsample and enter with a negative sign in the full sample.

In Table 17, we test the robustness of our results to the inclusion of proxies for political risk, restrictions on political rights and general measures of openness. We lag the openness measures two periods to reduce the problem of simultaneity. We find that this extension has little effect on our earlier findings. As expected, we find that higher political risk reduces the magnitude of FDI inflows.[30] Restrictions on political rights do not appear to matter, while openness to trade is associated with lower inflows of FDI. As these additional controls severely reduce our sample size, we do not include them in subsequent estimations.

A typical challenge presented by this type of regressions is separating the effect of the variable of interest, investment promotion efforts in our case, from the effects of other economic, political or regulatory changes happening at the same time. Therefore, to gain more confidence in our results, we examine whether there is a positive relationship between gross fixed domestic capital formation and the existence of an IPA. As the mandate of a typical IPA is restricted to promoting investment flows from abroad, there is no reason for a positive relationship between the IPA dummy and domestic investment. If a positive relationship were found, it would suggest that the IPA dummy may be capturing some policy reforms beneficial for investments in general rather than efforts to attract FDI.

[30] Recall that higher values of the index correspond to lower risk, hence the expected positive sign.

The results, presented in Table 18, indicate the absence of such a relationship and thus give us confidence that the IPA variable indeed reflects investment promotion activities. In all eight regressions, the coefficient on the IPA dummy (contemporaneous or lagged by one or more periods) is negative and not statistically significant. In the four columns to the right we add contemporaneous or lagged (by one or more periods) FDI inflows as additional control variable. The coefficient on FDI inflows is positive and statistically significant in all regressions. The results (not shown) are almost identical when we consider gross domestic capital formation rather than gross fixed domestic capital formation as the dependent variable.

Next we turn to the instrumental variable approach in an attempt to address the potential endogeneity between past FDI flows and creation of an investment promotion agency. We use a linear probability model to predict existence of an IPA. Our first instrument is the existence of an export promotion agency in the host country. The rationale is that countries often decide to establish an investment promotion agency and an export promotion agency around the same time. To be a valid instrument, the establishment of the EPA should explain the establishment of the investment promotion agency, without having any direct effect on FDI inflows. As EPAs typically focus on increasing the exports of domestic firms, it is not likely that presence of an EPA could directly affect FDI inflows.

To justify our second instrument we use the fact that bilateral and multilateral donors (e.g., the World Bank Group, and in particular its Foreign Investment Advisory Services and the Multilateral Investment Guarantee Agency) have been actively engaged in assisting developing countries set up investment promotion agencies. The involvement of donors in supporting IPAs has been significant. As shown in Figure 4, in 2004 donors contributed on average 8 percent of the IPA budget in developing countries. Donor involvement went beyond financing and included technical advice, staff training, etc. Thus our second instrument is defined as the log of aid received by the host country at time t either in dollar terms or in dollars per capita.

As is evident from Table 19, our instruments have a satisfactory predictive power as reflected in the high F statistic. We find a positive correlation between the existence of an IPA and an EPA and a positive association between the amount of per capita aid received and IPA existence. The Sargan test does not reject the validity of the instruments. The results from the second stage confirm our earlier findings: the coefficient on the IPA variable is still positive and highly

significant in all specifications. Some caution is, however, appropriate here given the much larger size of the estimated coefficients when compared to the OLS results. Optimistically interpreted, this could be an indication of reverse causality: IPAs are more likely to be established in countries with low FDI inflows. OLS estimation fails to take this into account and thus underestimates the magnitude of the effects. Pessimistically interpreted, the increase in the coefficients in the IV estimations could indicate that the exclusion restrictions are not fulfilled and that the instruments affect FDI inflows directly. Given the challenge of finding truly exogenous instruments in a panel of countries, we do not want to overemphasize the instrumental variable results.[31]

4.4 Agency characteristics

In response to the difficulties in teasing out the true effect of investment promotion, we next turn to asking questions about the effectiveness of different agency structures. We believe that finding patterns consistent with the case study evidence collected by investment promotion professionals and conventional wisdom will give us more faith in the results we have found so far.

The first question we analyze is whether the agency's legal status affects its performance. According to the case study work by Wells and Wint (2000), the nature of investment promotion activities suggests that quasi-governmental agencies may be best positioned to fulfill this function. On the one hand, there are several reasons why investment promotion should be performed by governments. First, the results of investment promotion activities may be difficult to translate into direct profits. While there is a market for consulting firms assisting companies in finding potential investment destinations, image building activities cannot be translated into profits that are readily captured by private companies. Second, agencies linked to the government may find it easier to assist investors in getting regulatory approvals, channel their complaints to the government and lobby authorities on behalf of foreign companies. On the other hand, the key ingredients of investment promotion—marketing a country as an attractive FDI location and investor servicing—are closer in nature to activities that are better performed by the private

[31] To further investigate the possible endogeneity of IPA establishment to FDI inflows we also estimated several probit models. The dependent variable was equal to one if an IPA was established in country c at time t, and zero if there was no IPA in country c at time t. On the right hand side, we included the log of FDI inflows as well as other controls from Table 16. Neither contemporary FDI inflows nor their first, second or third lags appeared to be statistically significant in any of the specifications. As the IFS database contains very few observations on FDI stocks, we did not repeat the exercise with FDI stocks as an explanatory variable.

sector. Successful marketing requires the flexibility to respond to changing business conditions and investor needs, calls for close interactions with the private sector and relies on the ability to generate and implement consistent promotional strategies throughout a long period of time. Usually, government entities are neither flexible nor immune to political interference from changing governments. Investor servicing also requires a good understanding of the needs of the private sector. Other private sector advantages in investment promotion include cost containment, flexibility in hiring and firing and ability to pay salaries above the civil service levels which allows the agency to hire highly skilled and motivated staff.

Our results confirm the intuition of Wells and Wint. In regressions not reported here, we find that agencies with a more autonomous status (i.e. agencies which are not subunits of a ministry) are more effective in attracting FDI inflows than subunits of a ministry.[32] In Table 20 (the first two columns), we show that this pattern is confirmed when we consider cases of the status change. We find that agencies starting out as subunits of a ministry become more effective when they gain more autonomy (that is they change their status to being either an autonomous public body, semi-autonomous agency reporting to a ministry, joint public-private or private entity), compared to those that remain subunits of a ministry.

In a related exercise (also Table 20), we find that IPAs accountable to external entities (in addition to or instead of being accountable to the agency's board) tend to be more effective. Further, we find that agencies accountable to entities dealing with economic issues rather than political issues (ministry of finance versus ministry of foreign affairs for example) are more effective in attracting FDI.[33] An explanation for this result might be that the work of an IPA is of economic nature and its involvement in the design of economic policy might make the IPA more effective in its mission.

[32] We define "more autonomous" as having a status other than a sub-unit of a ministry. In the Census, 30 IPAs had the status of a sub-unit of ministry, 26 an autonomous public body, 43 a semi-autonomous agency reporting to a ministry, 3 a joint public-private entity and 2 a private entity (figures for 2004).

[33] We defined economic institutions as ministry of finance, ministry of industry, ministry of commerce or other related institutions. The group of political institutions consists of president, prime minister and ministry foreign affairs. A surprising result was that agencies reporting to the highest political level (president or prime minister) were not found to be more effective than others, which contradicts the conclusions of Morisset (2003).

If we believe that marketing is effective only if one has a good product to sell, we would expect to see that IPAs located in countries with a better business climate are more effective. As it is impossible to find convincing time-varying proxies for the business climate for the whole period under study, we make a strong assumption that the business climate throughout the period considered was equal to the average outcome during 1996-2005.[34] We then interact business climate proxies compiled by Kaufman et al. (2006) with the IPA dummy.[35] Results presented in Table 21 confirm our priors. We find a positive and statistically significant interaction for the proxy for government effectiveness, regulatory quality, control of corruption, voice and accountability as well as for the summary measure. Somewhat surprisingly, the interaction terms with political stability and the rule of law do not appear to be statistically significant.

If agencies are effective at building the country's image, we would expect their activities to affect foreign perceptions of the host country. In an exercise not reported here, we employed the AT Kearney's FDI confidence index (ATKFDICI), which measures high ranking managers' perceptions of around 60 countries as FDI destinations. The managers are employed in the 1000 largest global firms. We tested whether the number of (or spending on) advertisements in the Financial Times (FT) was correlated with the index, after controlling for GDP, GDP per capita, GDP growth, inflation, regional dummies and a dummy for year 2003.[36] We found a positive and statistically significant correlation. Then we showed that this correlation is robust to additionally controlling for (one at a time) political risk, political stability and government effectiveness. We repeated the exercise for the average number of general advertisements in foreign press and domestic press placed by IPA during the 2003-2005 period, as reported in the Census. We found a significant positive correlation between the marketing efforts in foreign press and investor's perceptions. The correlation between advertisements in domestic press and investors' perceptions was insignificant, as expected. While far from perfect, this exercise is suggestive of IPAs being effective at image building.

[34] More specifically, we use the average of all index values available: 1996, 1998, 2000, 2002-2005.
[35] Note that we do not include the business climate measure by itself as its effect is absorbed by the country fixed effect.
[36] The ATKFDICI data were available to us for the years 2003, 2004 and 2005 and the FT data for 2002 and 2005. We therefore matched FT data for 2002 to ATKFDICI 2003. We are grateful to the *Financial Times* for providing us with the data.

4.5 Investment incentives

An aspect of investment promotion that typically receives high levels of attention from both policy makers and academics is investment incentives. In the Census, we collected time-varying information on five different types of investment incentives: financial incentives, tax holidays, reduced tax rates, subsidized infrastructure or services, and regulatory concessions. Our finding is that it is in general difficult to distinguish the effect of incentives from a more general effect of investment promotion, as there is a high correlation between these variables (see Table 8). When both the existence of investment promotion agency and incentives are included simultaneously, we generally find that the investment promotion dummy is significant while the incentive variable is not, as can be seen in Table 22. When the investment promotion variable is excluded, as in Table 23, we find a statistically significant positive correlation between FDI inflows and tax incentives and between FDI inflows and subsidized infrastructure or services. The magnitude is about the same as what we have typically found for the IPA existence effect in the earlier specifications.

4.6 Competition between countries

Government officials are often concerned about growing competition for FDI among countries. To shed some light on this issue we extend our specification to include presence of IPAs and FDI incentives in a peer group of host countries. In other words, in each year we count the number of countries in the peer group with an existing IPA and with FDI incentives on offer.[37] In Table 24, the peer group refers to countries within the same geographic region, while in Table 25 to countries within the same income group.[38] We control for the average GDP growth in the peer group (weighted by each country's GDP).

Two interesting findings emerge. First, FDI incentives appear to divert FDI inflows, but only within the geographic region, not within the income group. Incentive competition taking place

[37] To be more precise the variable enters as the log(number of other countries in the group with z + 0.001), where z is an IPA or incentive provision in year t.

[38] We use the World Bank classification of geographic regions: Latin American and the Caribbean (LAC), East Asia and the Pacific (EAP), Europe and Central Asia (ECA), Sub-Saharan Africa (SSA), South Asia (SA) and Middle East and North Africa (MENA). We also use the World Bank classification of income groups: low income, lower middle income, upper middle income, high income.

within a geographic region is consistent with the anecdotal evidence cited earlier. Second, the presence of an agency in the peer group does not divert FDI inflows.

Why don't we find that the presence of IPAs in the peer group leads to diversion of FDI? Presence of IPAs in neighboring countries might have three effects. First, positive externalities could exist from the marketing and information provision of IPAs in neighboring countries. For instance, CzechInvest's work may induce potential investors to consider not just the Czech Republic but also other countries in the region (e.g., neighboring Slovakia). Second, CzechInvest's marketing and hand-holding might convince an investor already considering the region to go to the Czech Republic rather than to a neighboring country. Third, the provision of investment incentives by the Czech Republic could influence an investor to choose the Czech Republic rather than another country in the region. In other words, the first factor is expected to have a positive effect on FDI inflows to other countries in the region, while the latter two would work in the opposite direction. The expected sign on the coefficient of IPA existence in other countries in the region is, therefore, ambiguous. When we do not control for FDI incentives offered by the peer group, we do not find a statistically significant coefficient on the number of IPAs in the peer group (results not reported to save space). When we explicitly include incentives, the effect of incentives is negative as expected. The IPA presence in other countries is still insignificant, which is consistent with the first and second effect being present but working in opposite directions.

5. Conclusions

Recent decades have witnessed increased competition among countries for FDI inflows. To keep up with their peers, many countries have engaged in investment promotion efforts and have offered incentives to foreign investors. Our analysis, based on newly collected information on national investment promotion efforts, offers several insights into these developments. First, our results suggest that investment promotion may be a viable policy option for developing countries with a sound business climate which wish to attract foreign investors. Second, our results confirm the practitioners' view that agencies' characteristics matter. As expected, subunits of ministries tend to be less effective in attracting FDI than agencies with a more autonomous status. Third, our findings on the diverting effect of tax incentives offered by other countries in the region point to potential benefits of regional coordination in this area.

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Tables: Information about the data used

Table 1: Aggregation across sectors and time, and matching Census sectors with BEA data

Sector	*Targeted sectors matched*	*BEA-data*	*Aggregated*	*Time period in BEA-data*
Petroleum	Mining and Quarrying	Petroleum		1989-1998
		Mining		1999-2004
Utilities	Electricity, gas and water provision	Utilities		1999-2004
Food	Food products	Food and kindred products		1989-1998
		Food		1999-2004
Chemicals	Petroleum, chemical, rubber, plastic products	Chemicals and allied products		1989-1998
		Chemicals		1999-2004
Metals	Metal and metal products	Primary and fabricated metals		1989-2004
Machinery	Machinery; Computers and electronic equipment	Industrial machinery and equipment		1989-1998
		Machinery	Yes	1999-2004
		Computer and electronic products	Yes	1999-2004
Electrical equipment	Computers and electronic equipment	Electronic and other electric equipment		1989-1998
		Electrical equipment, appliances, and components		1999-2004
Transportation equipment	Vehicles and other transport equipment	Transportation equipment		1989-2004
Wholesale trade	Trade and repairs	Wholesale trade		1989-2004
Banking	Financial intermediation; Back office services	Banking		1989-1998
		Depository institutions		1999-2004
Other Finance	Financial intermediation; Real estate and business activities; Back office services	Finance (except banking), insurance and real estate		1989-1998
		Finance (except depository institutions) and insurance		1999-2004
Services	Hotels and restaurants (until 1998); Real estate and business activities; Software; Biotechnology; Back office services	Services		1989-1998
ICT	Transport and telecommunications (from 1999); Real estate and business activities; Software; Back office services	Information		1999-2004
Professional services	Software; Biotechnology	Professional, scientific, and technical services		1999-2004
Other industries	Agriculture, Fishing and Forestry; Textiles and apparel; Wood and wood products; Construction; Hotels and restaurants (from 1999); Transport and telecommunications (until 1998)	Other industries	Yes	1989-2004
		Other manufacturing	Yes	1989-1998

Note: Aggregated means that we have combined the sectors into one.

Table 2: Countries included in the sector-level analysis

Survey respondents											Existence of IPA could not be confirmed			No IPA exists		
No		Targeted	Total	No		Targeted	Total	No		Targeted	Total	No	Total	No		Total
1	Albania	*20*	*129*	34	Guatemala	*58*	*165*	67	Pakistan	*0*	*60*	98	Andorra *70*	119	Congo, Rep.	*188*
2	Algeria	*0*	*175*	35	Guinea	*97*	*161*	68	Palau	*0*	*177*	99	Brunei *180*	120	Kuwait	*176*
3	Argentina	*0*	*180*	36	Guyana	*0*	*65*	69	Panama	*4*	*49*	100	Cameroon *183*	121	Liechtenstein	*171*
4	Armenia	*25*	*70*	37	Hungary	*24*	*98*	70	Paraguay	*0*	*163*	101	Central African Rep *70*	122	Norway	*175*
5	Aruba	*30*	*161*	38	Iceland	*40*	*170*	71	Peru	*26*	*147*	102	Chad *189*	123	Somalia	*189*
6	Australia	*172*	*187*	39	Iran, Islamic Rep.	*0*	*187*	72	Poland	*0*	*37*	103	Cuba *174*	124	St. Kitts and Nevis	*189*
7	Bangladesh	*0*	*60*	40	Ireland	*0*	*76*	73	Portugal	*121*	*166*	104	Djibouti *179*			
8	Belize	*0*	*160*	41	Israel	*0*	*104*	74	Romania	*0*	*163*	105	Equatorial Guinea *153*			
9	Bhutan	*0*	*29*	42	Italy	*0*	*79*	75	Samoa	*30*	*189*	106	Ethiopia *188*			
10	Bosnia and Herzegovina	*55*	*128*	43	Jamaica	*14*	*78*	76	Saudi Arabia	*0*	*95*	107	Eritrea *93*			
11	Botswana	*20*	*170*	44	Japan	*0*	*188*	77	Senegal	*65*	*165*	108	Gabon *178*			
12	Brazil	*0*	*155*	45	Jordan	*129*	*162*	78	Serbia and Montenegro	*43*	*106*	109	Haiti *173*			
13	Bulgaria	*59*	*104*	46	Kazakhstan	*64*	*123*	79	Singapore	*0*	*179*	110	Iraq *14*			
14	Cambodia	*58*	*81*	47	Kenya	*0*	*141*	80	Slovak Republic	*0*	*107*	111	Kyrgyz Republic *70*			
15	Canada	*84*	*178*	48	Korea, Rep.	*0*	*188*	81	Slovenia	*110*	*150*	112	Libya *177*			
16	Chile	*98*	*151*	49	Lao PDR	*0*	*59*	82	Solomon Islands	*0*	*13*	113	Mali *174*			
17	China	*0*	*177*	50	Latvia	*28*	*88*	83	South Africa	*115*	*140*	114	Sudan *189*			
18	Colombia	*0*	*79*	51	Lebanon	*103*	*176*	84	St. Vincent and the G	*50*	*189*	115	Suriname *162*			
19	Congo, Dem. Rep.	*50*	*180*	52	Lesotho	*0*	*85*	85	Sweden	*119*	*153*	116	Togo *189*			
20	Costa Rica	*96*	*176*	53	Lithuania	*85*	*110*	86	Switzerland	*0*	*173*	117	Turkmenistan *129*			
21	Cyprus	*40*	*173*	54	Macedonia, FYR	*0*	*60*	87	Taiwan, China	*0*	*79*	118	Uzbekistan *123*			
22	Czech Republic	*53*	*108*	55	Madagascar	*180*	*180*	88	Thailand	*0*	*50*					
23	Côte d'Ivoire	*133*	*174*	56	Malta	*0*	*66*	89	Tunisia	*68*	*161*					
24	Denmark	*0*	*131*	57	Mauritania	*100*	*184*	90	Turkey	*0*	*166*					
25	Ecuador	*43*	*163*	58	Mauritius	*99*	*178*	91	Uganda	*150*	*180*					
26	Egypt, Arab Rep.	*0*	*137*	59	Mexico	*18*	*141*	92	United Kingdom	*0*	*189*					
27	El Salvador	*120*	*163*	60	Moldova	*0*	*35*	93	Uruguay	*0*	*169*					
28	Fiji	*41*	*156*	61	Mozambique	*35*	*114*	94	Vanuatu	*108*	*178*					
29	Finland	*46*	*164*	62	Netherlands	*25*	*107*	95	Venezuela, RB	*64*	*151*					
30	France	*40*	*92*	63	Netherlands Antilles	*35*	*163*	96	Zambia	*0*	*171*					
31	Georgia	*0*	*65*	64	New Zealand	*97*	*156*	97	Zimbabwe	*0*	*123*					
32	Ghana	*82*	*165*	65	Nicaragua	*74*	*163*									
33	Greece	*124*	*183*	66	Oman	*78*	*159*									
	Group total										*13051*		*3057*			*1088*
	Total															*17196*

Note: Figures in this table correspond to column 1, Table 9. Countries listed either responded to the IPA Census or are very likely not to have an IPA. Census respondents either gave the full timing (the start and the end year of targeting) for at least one targeted sector or reported not having practiced sector targeting. Sectors with incomplete timing information are excluded from the sample. The column "Targeted" lists the number of sector-years with observed targeting. "Total" is the total number of observations on the country included in the estimation. 124 countries are included in the sector-level analysis. Ten countries are included in the sector-level analysis but excluded from the country-level analysis due to missing data in IFS. Five of them responded to the Census: Bhutan, Dem. Rep. Congo, Palau, Serbia and Montenegro, and Taiwan, China. IPA existence could not be confirmed for four: Andorra, Brunei, Cuba, and Uzbekistan. Liechtenstein confirmed no having an IPA. There are 14 countries included in the country-level analysis but excluded from the sector-level analysis: nine Census respondents (Burkina Faso, Cape Verde, French Polynesia, The Gambia, Mongolia, Spain, Sri Lanka, Syrian Arab Republic and Ukraine), Austria for whom the data was found on the IPA website, two for whom IPA existence could not be confirmed (Benin, Guinea-Bissau), and two where the absence of an IPA was confirmed (Comoros and Tajikistan). The total number of countries available for the country-level analysis is 128. The actual sample of the analysis based on aggregate data varies across regressions due to availability of controls.

Table 3: Number of sectors targeted by countries engaged in targeting

No		*Sectors targeted*	No		*Sectors targeted*
1	Albania	*2*	29	Kazakhstan	*6*
2	Armenia	*5*	30	Latvia	*4*
3	Aruba	*2*	31	Lebanon	*8*
4	Australia	*13*	32	Lithuania	*9*
5	Bosnia and Herzegovina	*6*	33	Madagascar	*14*
6	Botswana	*3*	34	Mauritania	*8*
7	Bulgaria	*8*	35	Mauritius	*8*
8	Cambodia	*10*	36	Mexico	*2*
9	Canada	*7*	37	Mozambique	*4*
10	Chile	*8*	38	Netherlands	*3*
11	Congo, Dem. Rep.	*4*	39	Netherlands Antilles	*3*
12	Costa Rica	*8*	40	New Zealand	*10*
13	Côte d'Ivoire	*10*	41	Nicaragua	*6*
14	Cyprus	*4*	42	Oman	*7*
15	Czech Republic	*7*	43	Panama	*2*
16	Ecuador	*3*	44	Peru	*3*
17	El Salvador	*10*	45	Portugal	*11*
18	Fiji	*4*	46	Samoa	*2*
19	Finland	*5*	47	Senegal	*5*
20	France	*4*	48	Serbia and Montenegro	*5*
21	Ghana	*7*	49	Slovenia	*10*
22	Greece	*10*	50	South Africa	*11*
23	Guatemala	*5*	51	St. Vincent and the Grenadines	*4*
24	Guinea	*8*	52	Sweden	*11*
25	Hungary	*4*	53	Tunisia	*6*
26	Iceland	*4*	54	Uganda	*12*
27	Jamaica	*1*	55	Vanuatu	*8*
28	Jordan	*10*	56	Venezuela, RB	*6*

Note: Tables gives maximum number of sectors targeted by a country within one year. Sample corresponds to column 1, Table 9.

Table 4: Sectors included in the sector-level analysis

Sector	Number of observations
Petroleum	1,370
Utilities	526
Food	1,353
Chemicals	1,430
Metals	1,435
Machinery	1,389
Electrical equipment	1,449
Transportation equipment	1,429
Wholesale trade	1,612
Banking	1,186
Other Finance	1,356
Services	473
ICT	445
Professional services	491
Other industries	1,252
Total	17,196

Note: The number of observations corresponds to the regression of column 1, Table 9.

Table 5: Descriptive statistics corresponding to benchmark table, sector-level analysis

	All countries			Developing countries		
	No. of observations	Mean	Std. dev.	No. of observations	Mean	Std. dev.
FDI inflow (million current US dollars)	17196	49.20	791.00	13012	10.50	170.00
L.FDI stock (million current US dollars)	17193	471.00	3120.00	13012	102.00	545.00
Sector targeting dummy	17196	0.10	0.30	13012	0.10	0.30
1 year before sect. targ.	17196	0.02	0.14	13012	0.02	0.14
1 and 2 years before sect. targ.	17196	0.04	0.20	13012	0.04	0.20
1, 2 and 3 years before sect. targ.	17196	0.06	0.24	13012	0.06	0.24
1, 2, 3 and 4 years before sect. targ.	17196	0.07	0.27	13012	0.08	0.27

Note: The period is 1990-2004. L means lagged one period.

Table 6: Descriptive statistics corresponding to table using sales and employment and the dependent variable, sector-level analysis

	No. of. obs.	Mean	Std. dev.
Developing, sales			
Sales (million current US dollars)	3087	1040.00	2470.00
Sector targeting dummy	3087	0.05	0.22
Developing, employment			
Employment	3360	7092.46	18198.19
Sector targeting dummy	3360	0.06	0.23

Note: The period covered is 1983-2003.

Table 7: Descriptive statistics aggregate analysis

	All countries			Developing countries		
	No. of observations	Mean	Std. dev.	No. of observations	Mean	Std. dev.
FDI flow (millions current US dollars)	2644	2050.00	7090.00	1876	918.00	4290.00
IPA	2644	0.43	0.49	1876	0.42	0.49
GDP growth (based on GDP in constant 2000 US dollars)	2644	0.03	0.05	1876	0.03	0.05
Inflation	2644	0.40	3.50	1876	0.53	4.14
GDP per capita (current US dollars)	2644	5680.00	8230.00	1876	1794.93	1958.76
Population (millions)	2644	26.80	102.00	1876	29.90	119.00
Restrictions on civil liberties	2644	3.31	1.79	1876	3.90	1.56
Restrictions on political rights	2644	3.15	2.07	1876	3.77	1.95
Political risk (ICRG)	1658	65.32	15.76	1143	58.77	12.87
L2.Exports+Imports (millions constant 2000 US dollars)	2231	60500.00	125000.00	1627	21300.00	51500.00
(Exports+Imports)/GDP (GDP in constant 2000 US dollars)	2231	0.66	0.42	1627	0.71	0.46
Gross fixed capital formation (millions constant 2000 US dollars)	2146	38800.00	127000.00	1562	13400.00	42500.00
EPA (existence of an export agency)	1618	0.52	0.50	1125	0.48	0.50
Aid (million current US dollars)	2030	298.00	457.00	1844	308.00	457.00
Aid per capita (current US dollars)	2030	49.86	68.27	1844	48.84	64.91
Time varying dummy agency status: subunit of ministry	2274	0.16	0.37	1561	0.12	0.32
Time varying dummy agency status: quasi autonomous public body	2274	0.28	0.45	1561	0.32	0.47
Time varying dummy agency status: other	2274	0.05	0.22	1561	0.07	0.26
Status change: from subunit of ministry	2644	0.01	0.08	1876	0.01	0.09
Accountable to external entity	2374	0.32	0.47	1702	0.31	0.46
Accountable to economic entity	2374	0.29	0.45	1702	0.28	0.45
Accountable to political entity	2374	0.03	0.18	1702	0.03	0.18
Accountable to agency board	2374	0.04	0.20	1702	0.06	0.23
Voice and Accountability	2621	0.21	0.92	1853	-0.13	0.77
Political Stability	2621	0.04	0.90	1853	-0.28	0.80
Government Effectiveness	2621	0.26	1.03	1853	-0.28	0.60
Regulatory Quality	2621	0.26	0.85	1853	-0.14	0.63
Rule of Law	2621	0.19	1.02	1853	-0.35	0.62
Control of Corruption	2621	0.25	1.09	1853	-0.34	0.57
Average of all KKZ	2621	0.20	0.91	1853	-0.25	0.59
Financial incentives	2351	0.05	0.22	1705	0.04	0.20
Tax holidays	2327	0.15	0.35	1581	0.18	0.39
Reduced tax rates	2099	0.12	0.32	1411	0.13	0.33
Tax hol. or red. tax rates	2383	0.17	0.38	1637	0.21	0.40
Subsidized infras. or serv.	2353	0.02	0.15	1615	0.03	0.18
Regulatory concessions	2488	0.01	0.08	1720	0.01	0.10
Fin. or tax inc.	2550	0.18	0.39	1782	0.21	0.41
Fin. or tax inc. or subs.	2563	0.18	0.38	1795	0.21	0.41
IPAs, region level	2644	7.56	4.92	1876	6.89	4.71
Tax hol. or red. tax rates, region level	2383	3.08	2.83	1637	3.46	3.17
Fin. or tax inc., region level	2550	3.28	3.10	1782	3.67	3.46
Fin. or tax inc. or subs., region level	2563	3.30	3.13	1795	3.70	3.50
IPAs, income gr. level	2644	10.72	6.55	1876	10.91	6.87
Tax hol. or red. tax rates, income gr. level	2383	4.57	4.52	1637	5.64	5.00
Fin. or tax inc., income gr. level	2550	4.94	4.63	1782	5.98	5.03
Fin. or tax inc. or subs., income gr. level	2563	4.96	4.64	1795	6.01	5.04
GDP growth, region (based on GDP in constant 2000 US dollars)	2644	0.03	0.02	1876	0.03	0.03
GDP growth, income gr. (based on GDP in constant 2000 US dollars)	2644	0.04	0.02	1876	0.04	0.02

Note: The sample corresponds to columns 1 and 5, Table 16. Quasi autonomous public body means Autonomous public body or Semi-autonomous agency reporting to a ministry. Rest means Joint public-private entity or Private or Other. The period covered is 1972-2004. LX means lagged X periods.

Table 8: Correlation between IPA existence and incentives

	IPA	Financial	Tax holidays	Tax reductions	Tax hol. or red.	Subsidies	Regulations	Other	Fin, tax or sub.	Fin or tax.
IPA	1.00									
Financial	0.28	1.00								
Tax holidays	**0.44**	0.34	1.00							
Tax reductions	**0.48**	0.30	0.61	1.00						
Tax hol. or red.	**0.50**	0.34	0.92	0.76	1.00					
Subsidies	0.14	0.07	0.38	0.18	0.36	1.00				
Regulations	0.18	0.27	0.19	0.19	0.17	0.01	1.00			
Other	0.15	0.07	0.39	0.28	0.38	0.43	0.17	1.00		
Fin, tax or sub.	0.53	0.45	0.89	0.74	0.97	0.35	0.24	0.363	1.00	
Fin or tax.	0.53	0.45	0.89	0.74	0.97	0.35	0.24	0.363	1.00	1.00

Note: "Subsidies" refers to subsidized infrastructure or services, "Regulations" to regulatory concessions, "Fin, tax or sub." to offering financial incentives, tax holidays, tax reductions or subsidies to infrastructure/services, "Fin or tax" to offering financial incentives, tax reductions or tax holidays.

Tables: Sector-level analysis

Table 9: Baseline specification with country-year, sector-year and country-sector fixed effects

	All	All	All	All	Developing	Developing	Developing	Developing
Sector targeting	0.308				0.935***			
	[0.341]				[0.330]			
L. Sector targeting		0.770**				1.159***		
		[0.362]				[0.346]		
L2. Sector targeting			1.033**				1.377***	
			[0.406]				[0.387]	
L3. Sector targeting				0.968**				1.360***
				[0.457]				[0.430]
Observations	17196	17193	16610	16009	13012	13012	12522	12017
No. of country-sector groups	1570	1570	1570	1568	1203	1203	1203	1201
Within R-squared	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of US foreign direct investment into industry i in country c at time t. Sector targeting is equal to one if industry i was targeted by country c at time t, and zero otherwise. LX means lagged X periods.

Table 10: Controlling for FDI inflows before targeting. Specification with country-year, sector-year and country-sector fixed effects

	All	All	All	All	Developing	Developing	Developing	Developing
Sector targeting	0.227	0.307	0.143	0.230	**0.920*****	**1.052*****	**0.770****	**0.864****
	[0.354]	[0.367]	[0.381]	[0.395]	[0.343]	[0.355]	[0.369]	[0.384]
1 year before sect. targ.	-0.404				-0.073			
	[0.460]				[0.437]			
1 and 2 years before sect. targ.		-0.004				0.311		
		[0.365]				[0.347]		
1, 2 and 3 years before sect. targ.			-0.330				-0.322	
			[0.337]				[0.322]	
1, 2, 3 and 4 years before sect. targ.				-0.130				-0.113
				[0.329]				[0.314]
Observations	17196	17196	17196	17196	13012	13012	13012	13012
No. of country-sector groups	1570	1570	1570	1570	1203	1203	1203	1203
Within R-squared	0.17	0.17	0.17	0.17	0.19	0.19	0.19	0.19
Test coeff F	1.58	0.57	1.54	0.97	4.30	3.52	8.91	7.76
Test coeff p	0.21	0.45	0.21	0.32	**0.04**	**0.06**	**0.00**	**0.01**

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of US foreign direct investment into industry i in country c at time t. Sector targeting is equal to one if industry i was targeted by country c at time t, and zero otherwise. "X year before sect. targ." is a dummy variable equal to one in the X years before targeting started in a particular sector, and zero otherwise. "F" and "p-value" is the F-statistics and the p-value of a test if the coefficient of the dummy before targeting started is different from the coefficient of the targeting dummy.

Table 11: Explaining the choice of sectors to be targeted. Probit specification

	All	All	All	Developing	Developing	Developing
L.FDI flow	-0.006			-0.007		
	[0.005]			[0.006]		
L2.FDI flow		0.000			-0.001	
		[0.005]			[0.007]	
L3.FDI flow			-0.008			-0.014**
			[0.005]			[0.007]
Observations	4274	4079	3842	3272	3111	2904
L.FDI stock	0.001			0.001		
	[0.005]			[0.006]		
L2.FDI stock		0.005			0.006	
		[0.005]			[0.006]	
L3.FDI stock			0.005			0.007
			[0.006]			[0.006]
Observations	4914	4295	4097	3790	3293	3129

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is equal to one if country c begins targeting industry i at time t, and zero if the industry is not targeted at time t. LX means lagged X periods. Other controls include GDP per capita, population size, GDP growth, inflation, restrictions on civil liberties, country and year fixed effects. Population, GDP per capita, FDI flow and FDI stock enter in the log form.

Table 12: Removing cases of targeting determined by previous success or failure in attracting FDI to the sector. Specification with country-year, sector-year and country-sector fixed effects

	All	All	All	All	Developing	Developing	Developing	Developing
Sector targeting	**0.866***				**1.511*****			
	[0.488]				[0.472]			
L. Sector targeting		**1.373*****				**1.821*****		
		[0.514]				[0.489]		
L2. Sector targeting			**1.166****				**1.654*****	
			[0.564]				[0.534]	
L3. Sector targeting				0.839				0.824
				[0.640]				[0.595]
Observations	15285	15282	14750	14204	11699	11699	11246	10782
No. of country-sector groups	1389	1389	1389	1387	1075	1075	1075	1073
Within R-squared	0.19	0.20	0.20	0.20	0.21	0.21	0.21	0.21

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of US foreign direct investment into industry i in country c at time t. Sector targeting is equal to one if industry i was targeted by country c at time t, and zero otherwise. LX means lagged X periods.

Table 13: Removing services sectors and utilities. Specification with country-year, sector-year and country-sector fixed effects

	All	All	All	All	Developing	Developing	Developing	Developing
Sector targeting	0.590				1.406***			
	[0.438]				[0.420]			
L. Sector targeting		0.801*				1.457***		
		[0.467]				[0.446]		
L2. Sector targeting			0.838				1.359***	
			[0.515]				[0.487]	
L3. Sector targeting				0.615				1.329**
				[0.573]				[0.535]
Observations	11107	11104	10894	10678	8400	8400	8217	8028
No. of country-sector groups	868	868	868	868	665	665	665	665
Within R-squared	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.23

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of US foreign direct investment into industry i country c at time t. Sector targeting is equal to one if industry i was targeted by country c at time t, and zero otherwise. LX means lagged X periods.

Table 14: Controlling for lagged FDI stock in the sector. Specification with country-year, sector-year and country-sector fixed effects

	All	All	All	All	Developing	Developing	Developing	Developing
Sector targeting	0.313				**0.936*****			
	[0.341]				[0.330]			
L. Sector targeting		**0.770****				**1.160*****		
		[0.362]				[0.346]		
L2. Sector targeting			**1.032****				**1.377*****	
			[0.406]				[0.387]	
L3. Sector targeting				**0.965****				**1.360*****
				[0.457]				[0.430]
L. FDI stock	0.000	0.000	-0.003	-0.011	0.006	0.006	0.002	-0.004
	[0.014]	[0.014]	[0.014]	[0.015]	[0.014]	[0.014]	[0.014]	[0.015]
Observations	17193	17193	16610	16009	13012	13012	12522	12017
No. of country-sector groups	1570	1570	1570	1568	1203	1203	1203	1201
Within R-squared	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of US foreign direct investment into industry i in country c at time t. Sector targeting is equal to one if industry i was targeted by country c at time t, and zero otherwise. LX means lagged X periods. FDI stock is included in the log form.

Table 15: Using US affiliate sales and employment as dependent variables. Specification with country-year, sector-year and country-sector fixed effects

	US affiliate sales				US affiliate employment			
	Developing	Developing	Developing	Developing	Developing	Developing	Developing	Developing
Sector targeting	**1.033*****				**0.520*****			
	[0.363]				[0.143]			
L. Sector targeting		**1.096*****				**0.483*****		
		[0.402]				[0.158]		
L2. Sector targeting			**1.054****				**0.505*****	
			[0.452]				[0.186]	
L3. Sector targeting				**1.164****				**0.507****
				[0.534]				[0.223]
Observations	3087	3034	2976	2917	3360	3295	3227	3159
No. of country-sector groups	227	226	225	225	233	233	233	233
Within R-squared	0.37	0.37	0.37	0.37	0.40	0.39	0.39	0.39

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of US foreign direct investment into industry i in country c at time t. Sector targeting is equal to one if industry i was targeted by country c at time t, and zero otherwise. LX means lagged X periods.

Tables: Country-level analysis

Table 16: Specification with country and time fixed effects

	All	All	All	All	Developing	Developing	Developing	Developing
IPA	0.640				**1.337****			
	[0.393]				[0.481]			
L. IPA		**1.036****				**1.646****		
		[0.398]				[0.485]		
L2. IPA			**0.822****				**1.353****	
			[0.403]				[0.489]	
Age				0.489				**1.333****
				[0.405]				[0.507]
Age squared				0.006				-0.253
				[0.152]				[0.195]
GDP per capita	-1.651***	-1.633***	-1.644***	-1.696***	-2.243***	-2.250***	-2.234***	-2.231***
	[0.431]	[0.431]	[0.431]	[0.438]	[0.512]	[0.512]	[0.512]	[0.516]
GDP growth	8.646***	8.557***	8.683***	8.611***	9.752***	9.740***	9.967***	9.781***
	[2.432]	[2.430]	[2.430]	[2.431]	[2.744]	[2.741]	[2.743]	[2.744]
Population	-3.267**	-3.196**	-3.221**	-3.261**	-8.684***	-8.596***	-8.555***	-8.679***
	[1.417]	[1.416]	[1.417]	[1.418]	[2.225]	[2.222]	[2.225]	[2.226]
Inflation	-0.089***	-0.090***	-0.090***	-0.091***	-0.081**	-0.082**	-0.083**	-0.082**
	[0.033]	[0.033]	[0.033]	[0.033]	[0.034]	[0.034]	[0.034]	[0.034]
Restrictions on civil liberties	-0.222	-0.233*	-0.233*	-0.252*	-0.183	-0.201	-0.200	-0.209
	[0.140]	[0.140]	[0.140]	[0.141]	[0.157]	[0.157]	[0.157]	[0.159]
Observations	2644	2644	2644	2644	1876	1876	1876	1876
No. of countries	114	114	114	114	89	89	89	89
Within R-squared	0.14	0.14	0.14	0.14	0.18	0.18	0.18	0.18

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Age, Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. All regressions include host country and year fixed effects. LX means lagged X periods.

Table 17: Specification with country and time fixed effects and additional control variables

	All	All	All	All	Developing	Developing	Developing	Developing
IPA	0.437	0.458	0.544	0.494	**1.386****	**1.394****	**1.307****	**1.280****
	[0.489]	[0.489]	[0.505]	[0.505]	[0.589]	[0.589]	[0.603]	[0.605]
Restrictions on political rights		-0.296				-0.132		
		[0.215]				[0.230]		
L2. Exports+Imports			**-1.464****				**-1.279***	
			[0.676]				[0.713]	
L2. (Exports+Imports)/GDP				**-1.737*****				-1.001
				[0.641]				[0.684]
GDP per capita	-2.711***	-2.647***	-1.979***	-2.149***	-3.554***	-3.522***	-3.031***	-3.354***
	[0.594]	[0.596]	[0.727]	[0.672]	[0.663]	[0.665]	[0.799]	[0.743]
GDP growth	12.574***	12.527***	11.241***	12.942***	13.359***	13.325***	12.154***	13.734***
	[3.682]	[3.681]	[4.002]	[3.916]	[3.997]	[3.999]	[4.247]	[4.143]
Population	-10.336***	-9.931***	-7.413***	-6.971**	-13.280***	-13.008***	-13.477***	-12.990***
	[2.503]	[2.519]	[2.698]	[2.709]	[3.383]	[3.417]	[3.574]	[3.685]
Inflation	-0.089**	-0.090***	-0.088***	-0.086**	-0.075**	-0.076**	-0.078**	-0.076**
	[0.035]	[0.035]	[0.034]	[0.034]	[0.035]	[0.035]	[0.035]	[0.035]
Restrictions on civil liberties	-0.320*	-0.084	-0.373*	-0.311	-0.219	-0.106	-0.317	-0.296
	[0.190]	[0.256]	[0.193]	[0.195]	[0.200]	[0.280]	[0.203]	[0.205]
Political risk (ICRG)	0.069***	0.064***	0.070***	0.065***	0.090***	0.087***	0.090***	0.088***
	[0.022]	[0.022]	[0.023]	[0.023]	[0.026]	[0.026]	[0.026]	[0.026]
Observations	1658	1658	1512	1512	1143	1143	1092	1092
No. of countries	94	94	89	89	69	69	67	67
Within R-squared	0.18	0.18	0.19	0.20	0.24	0.24	0.24	0.24

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Exports+Imports, Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. The index of political risk ranges from 0 to 100, where 0 means very high political risk and 100 very low political risk. All regressions include host country and year fixed effects. LX means lagged X periods.

Table 18: The effect of IPA on domestic capital formation

	Developing	Developing	Developing	Developing	Developing	Developing	Developing	Developing
IPA	-0.040				-0.041	-0.038	-0.035	-0.036
	[0.027]				[0.027]	[0.027]	[0.027]	[0.026]
L. IPA		-0.029						
		[0.028]						
L2. IPA			-0.046					
			[0.028]					
L3. IPA				-0.047				
				[0.029]				
FDI inflows					0.003**			
					[0.001]			
L. FDI inflows						0.004***		
						[0.001]		
L2. FDI inflows							0.003**	
							[0.001]	
L3. FDI inflows								0.003**
								[0.001]
L2. GDP per capita	0.425***	0.425***	0.425***	0.424***	0.372***	0.362***	0.349***	0.340***
	[0.026]	[0.026]	[0.026]	[0.026]	[0.029]	[0.029]	[0.029]	[0.029]
L2. GDP growth	1.491***	1.494***	1.504***	1.500***	1.509***	1.496***	1.478***	1.588***
	[0.142]	[0.142]	[0.142]	[0.142]	[0.152]	[0.150]	[0.150]	[0.158]
L2. Population	0.280**	0.280**	0.276**	0.273**	0.028	0.034	-0.003	-0.041
	[0.120]	[0.120]	[0.120]	[0.120]	[0.130]	[0.132]	[0.134]	[0.135]
L2. Inflation	-0.002**	-0.002**	-0.002**	-0.002**	0.000	0.001	0.000	0.000
	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]	[0.002]	[0.002]	[0.002]
L2. Restrictions on civil liberties	0.019**	0.020**	0.020**	0.020**	0.012	0.008	0.006	0.004
	[0.009]	[0.009]	[0.009]	[0.009]	[0.009]	[0.009]	[0.009]	[0.008]
Observations	1753	1753	1753	1753	1523	1524	1507	1477
No. of countries	80	80	80	80	77	77	77	77
Within R-squared	0.51	0.51	0.51	0.51	0.53	0.52	0.53	0.53

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of gross fixed capital formation in country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. FDI inflows, Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. All regressions include host country and year fixed effects. LX means lagged X periods.

Table 19: Instrumental variable estimation

First stage	Developing	Developing	Developing
EPA	**0.362*** **	**0.360*** **	**0.362*** **
	[0.036]	[0.037]	[0.037]
Aid		**0.007***	
		[0.004]	
Aid per capita			**0.029** **
			[0.014]
Within R-squared	0.48	0.47	0.47
Shea partial R2	0.13	0.13	0.13
F	99.99	48.35	48.98
Second stage			
IPA	**7.706*** **	**7.011*** **	**7.141*** **
	[1.773]	[1.681]	[1.676]
Sargan statistics		0.00	0.12
Sargan P-value		0.99	0.73
Observations	761	743	743
No. of countries	44	44	44

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The first stage is a linear probability model predicting existence of an IPA. The dependent variable in the second stage is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Control variables both in first and second stage are the usual: log of GDP per capita, GDP growth, log of Population, Inflation, Restrictions on civil liberties and Political risk (ICRG). All regressions include host country and year fixed effects. The instruments used to predict IPA existence are the existence of an export agency (EPA) in country c at time t, as well as aid and aid per capita inflows to country c at time t.

Table 20: Agency reporting and status

	Developing	Developing	Developing	Developing	Developing	Developing	Developing
IPA	1.584		-2.067	-0.345	**1.413****	**1.716*****	
	[1.083]		[1.553]	[1.045]	[0.571]	[0.571]	
Status change: from subunit of ministry	**3.217***	**3.971***					
	[1.849]	[2.096]					
Accountable to external entity			**3.783****				
			[1.602]				
Accountable to economic entity				**2.130***			**1.815*****
				[1.110]			[0.594]
Accountable to political entity					-0.499		0.966
					[1.394]		[1.362]
Accountable to agency board						-3.783**	-2.069
						[1.602]	[1.553]
GDP per capita	-4.374***	-5.795***	-2.216***	-2.320***	-2.292***	-2.216***	-2.246***
	[1.307]	[1.958]	[0.548]	[0.549]	[0.551]	[0.548]	[0.551]
GDP growth	10.720	9.396	9.710***	9.709***	9.621***	9.710***	9.729***
	[6.667]	[9.211]	[2.905]	[2.907]	[2.910]	[2.905]	[2.906]
Population	-17.375***	-20.098	-6.617***	-6.557***	-6.809***	-6.617***	-6.547***
	[4.940]	[14.268]	[2.403]	[2.407]	[2.407]	[2.403]	[2.406]
Inflation	0.307	-0.076	-0.086**	-0.086**	-0.083**	-0.086**	-0.087**
	[0.537]	[0.547]	[0.035]	[0.035]	[0.035]	[0.035]	[0.035]
Restrictions on civil liberties	-0.311	1.004	-0.227	-0.244	-0.233	-0.227	-0.233
	[0.413]	[0.697]	[0.174]	[0.174]	[0.174]	[0.174]	[0.174]
Observations	327	193	1702	1702	1702	1702	1702
Number of group(code)	15	15	88	88	88	88	88
R-squared	0.25	0.29	0.18	0.17	0.17	0.18	0.18

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. All regressions include host country and year fixed effects. The estimates in the first two columns are based on a sample including counties where the IPA either changed its status from being a subunit of a ministry to a more autonomous setup or remained a subunit of a ministry throughout the entire period. The model in the first column is estimated on all years available for these countries, while the sample in the second column includes only years during an IPA was in operation. Accountable to external entity takes the value of one if either "Accountable to economic entity" takes the value of one or the "Accountable to political entity" takes the value of one.

Table 21: IPAs appear to work better in countries with a good business climate

	Developing	Developing	Developing	Developing	Developing	Developing	Developing
IPA	**1.315*****	**1.189****	**1.570*****	**1.395*****	**1.517*****	**1.723*****	**1.550*****
	[0.484]	[0.502]	[0.510]	[0.485]	[0.526]	[0.535]	[0.506]
IPA*Voice and Accountability	**1.545*****						
	[0.573]						
IPA*Political Stability		-0.325					
		[0.504]					
IPA*Government Effectiveness			**1.329***				
			[0.730]				
IPA*Regulatory Quality				**2.269*****			
				[0.726]			
IPA*Rule of Law					0.817		
					[0.694]		
IPA*Control of Corruption						**1.415****	
						[0.717]	
IPA*Average of all KKZ							**1.404***
							[0.758]
GDP per capita	-2.357***	-2.285***	-2.383***	-2.366***	-2.357***	-2.394***	-2.384***
	[0.519]	[0.521]	[0.521]	[0.518]	[0.521]	[0.521]	[0.520]
GDP growth	9.690***	9.869***	9.746***	9.447***	9.782***	9.805***	9.716***
	[2.764]	[2.769]	[2.767]	[2.764]	[2.768]	[2.766]	[2.767]
Population	-8.001***	-9.510***	-8.661***	-7.817***	-8.967***	-8.762***	-8.524***
	[2.329]	[2.299]	[2.308]	[2.326]	[2.301]	[2.297]	[2.320]
Inflation	-0.083**	-0.081**	-0.083**	-0.084**	-0.083**	-0.084**	-0.083**
	[0.034]	[0.034]	[0.034]	[0.034]	[0.034]	[0.034]	[0.034]
Restrictions on civil liberties	-0.123	-0.199	-0.160	-0.149	-0.160	-0.146	-0.139
	[0.159]	[0.161]	[0.158]	[0.158]	[0.159]	[0.159]	[0.159]
Observations	1853	1853	1853	1853	1853	1853	1853
No. of countries	88	88	88	88	88	88	88
Within R-squared	0.18	0.18	0.18	0.18	0.18	0.18	0.18

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. The KKZ-variables are averages across available years (1996, 1998, 2000, 2002-2005) All regressions include host country and year fixed effects. LX means lagged X periods.

Table 22: IPA existence and incentives

	Developing	Developing	Developing	Developing	Developing	Developing	Developing	Developing
IPA	**1.122****	0.320	0.763	0.373	**1.298****	**1.030****	**1.082****	**1.046****
	[0.495]	[0.536]	[0.621]	[0.534]	[0.528]	[0.509]	[0.510]	[0.506]
Financial incentives	-0.686							
	[0.985]							
Tax holidays		0.777						
		[0.615]						
Reduced tax rates			-0.403					
			[0.815]					
Tax hol. or red. tax rates				0.474				
				[0.597]				
Subsidized infras. or serv.					**2.460***			
					[1.392]			
Regulatory concessions						-0.202		
						[2.705]		
Fin. or tax inc.							0.232	
							[0.562]	
Fin. or tax inc. or subs.								0.260
								[0.558]
GDP per capita	-1.940***	-1.625***	-1.906***	-1.543***	-2.178***	-2.325***	-1.767***	-1.767***
	[0.543]	[0.592]	[0.632]	[0.581]	[0.574]	[0.542]	[0.547]	[0.545]
GDP growth	10.420***	10.580***	11.517***	10.519***	8.948***	8.878***	10.110***	9.296***
	[2.864]	[3.027]	[3.254]	[2.976]	[3.003]	[2.850]	[2.886]	[2.817]
Population	-7.348***	-2.100	-1.452	-2.410	-4.280*	-7.256***	-6.103***	-5.845**
	[2.333]	[2.479]	[2.678]	[2.445]	[2.441]	[2.335]	[2.307]	[2.289]
Inflation	-0.076**	-0.077**	-0.089**	-0.081**	-0.082**	-0.080**	-0.079**	-0.080**
	[0.033]	[0.034]	[0.035]	[0.034]	[0.035]	[0.034]	[0.034]	[0.034]
Restrictions on civil liberties	0.018	-0.132	-0.093	-0.116	-0.221	-0.081	-0.271*	-0.268*
	[0.166]	[0.169]	[0.179]	[0.166]	[0.171]	[0.166]	[0.162]	[0.161]
Observations	1705	1581	1411	1637	1615	1720	1782	1795
No. of countries	81	75	70	79	78	83	85	86
Within R-squared	0.16	0.17	0.17	0.16	0.16	0.17	0.16	0.16

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. All regressions include host country and year fixed effects.

Table 23: Incentives when IPA existence is excluded

	Developing	Developing	Developing	Developing	Developing	Developing	Developing	Developing
Financial incentives	-0.718							
	[0.992]							
Tax holidays		**1.431****						
		[0.594]						
Reduced tax rates			-0.403					
			[0.752]					
Tax hol. or red. tax rates				**1.071***				
				[0.571]				
Subsidized infras. or serv.					**2.887****			
					[1.395]			
Regulatory concessions						0.102		
						[2.721]		
Fin. or tax inc.							**0.997***	
							[0.539]	
Fin. or tax inc. or subs.								**1.008***
								[0.535]
GDP per capita	-2.191***	-1.883***	-2.167***	-1.794***	-2.414***	-2.522***	-1.951***	-1.952***
	[0.541]	[0.588]	[0.627]	[0.578]	[0.571]	[0.540]	[0.545]	[0.543]
GDP growth	10.267***	10.183***	11.074***	10.033***	8.744***	8.718***	9.713***	9.021***
	[2.855]	[3.005]	[3.230]	[2.958]	[2.990]	[2.837]	[2.874]	[2.805]
Population	-6.385***	-1.266	-0.559	-1.714	-3.327	-6.282***	-5.130**	-4.898**
	[2.341]	[2.475]	[2.673]	[2.446]	[2.447]	[2.339]	[2.310]	[2.292]
Inflation	-0.077**	-0.076**	-0.089**	-0.080**	-0.083**	-0.080**	-0.077**	-0.078**
	[0.034]	[0.034]	[0.035]	[0.034]	[0.035]	[0.034]	[0.034]	[0.034]
Restrictions on civil liberties	0.078	-0.089	-0.026	-0.065	-0.149	-0.027	-0.214	-0.212
	[0.167]	[0.169]	[0.179]	[0.166]	[0.171]	[0.167]	[0.163]	[0.162]
Observations	1731	1607	1437	1663	1641	1746	1808	1821
No. of countries	82	76	71	80	79	84	86	87
Within R-squared	0.17	0.18	0.18	0.17	0.17	0.18	0.17	0.17

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. IPA equals one if an investment promotion agency exists in country c at time t. Population and GDP per capita enter in the log form. The index of restrictions on civil liberties ranges from 1 denoting most free countries to 7 denoting least free countries. All regressions include host country and year fixed effects.

Table 24: Competition within the geographic region

		Developing	Developing	Developing
Host country variables	IPA	0.437	**1.093****	**1.056****
		[0.538]	[0.512]	[0.508]
	Tax hol. or red. tax rates	0.527		
		[0.598]		
	Fin. or tax inc.		0.215	
			[0.563]	
	Fin. or tax inc. or subs.			0.246
				[0.558]
Regional variables	IPAs, region	0.648	0.785	0.751
		[0.874]	[0.810]	[0.806]
	Tax hol. or red. tax rates, region	**-0.230****		
		[0.104]		
	Fin. or tax inc., region		**-0.291*****	
			[0.097]	
	Fin. or tax inc. or subs., region			**-0.291*****
				[0.097]
	GDP growth, region	-6.830	-10.468	**-11.160***
		[7.022]	[6.703]	[6.642]
	Observations	1637	1782	1795
	No. of countries	79	85	86
	Within R-squared	0.16	0.17	0.17

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. Host country variables: IPA equals one if an investment promotion agency exists in country c at time t, and zero otherwise. The incentive variables are equal to one if country c provided at least one of the relevant incentives at time t, and zero otherwise. Host country control variables (not shown in the table) include: log of GDP per capita, GDP growth, log of Population, Inflation, Restrictions on civil liberties. All regressions include host country and year fixed effects. Regional variables: "regions" are defined following the World Bank classification: Latin American and the Caribbean (LAC), East Asia and the Pacific (EAP), Europe and Central Asia (ECA), Sub-Saharan Africa (SSA), South Asia (SA) and Middle East and North Africa (MENA). GDP growth is the GDP weighted average of the GDP growth of the other countries in the region (included in the sample). The weights are year specific. Other regional variables include the log of the number of other countries in country c's region that have an IPA or offer one of the incentives in year t.

Table 25: Competition within the income group

		Developing	Developing	Developing
Host country variables	IPA	0.364	**1.079****	**1.043****
		[0.536]	[0.512]	[0.508]
	Tax hol. or red. tax rates	0.489		
		[0.598]		
	Fin. or tax inc.		0.194	
			[0.563]	
	Fin. or tax inc. or subs.			0.223
				[0.559]
Income group variables	IPAs, inc. gr	0.311	-0.045	-0.051
		[1.018]	[0.976]	[0.972]
	Tax hol. or red. tax rates, income gr.	0.126		
		[0.138]		
	Fin. or tax inc., income group		0.080	
			[0.143]	
	Fin. or tax inc. or sub., income gr.			0.081
				[0.142]
	GDP growth, income gr.	-15.941	-12.534	-12.539
		[10.869]	[10.453]	[10.376]
	Observations	1637	1782	1795
	No. of countries	79	85	86
	Within R-squared	0.16	0.16	0.16

Note: Standard errors are reported in brackets. ***, **, * denotes significance at the 1, 5 and 10% level, respectively. The dependent variable is the log of inflow of foreign direct investment into country c at time t. Host country variables: IPA equals one if an investment promotion agency exists in country c at time t, and zero otherwise. The incentive variables are equal to one if country c provided at least one of the relevant incentives at time t, and zero otherwise. Host country control variables (not shown in the table) include: log of GDP per capita, GDP growth, log of Population, Inflation, Restrictions on civil liberties. All regressions include host country and year fixed effects. Regional variables: "income groups" are defined following the World Bank classification: low income, lower middle income, upper middle income. GDP growth is the GDP weighted average of the GDP growth of the other countries in the region (included in the sample). The weights are year specific. Other regional variables include the log of the number of other countries in country c's region that have an IPA or offer one of the incentives in year t.

Figures

Figure 1: Number of IPAs in existence

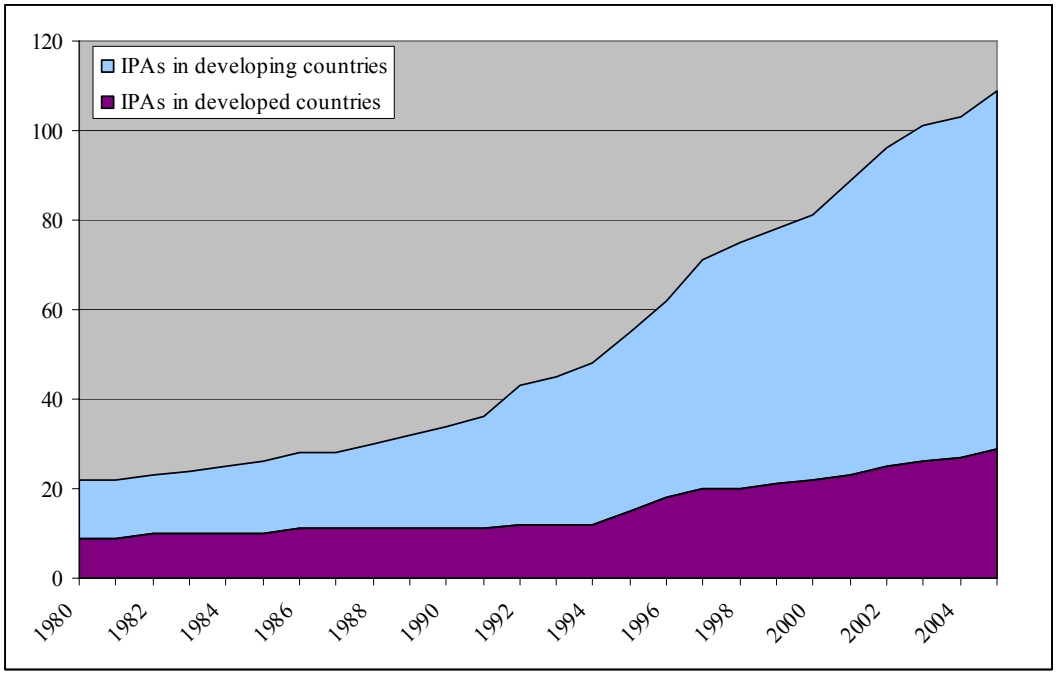
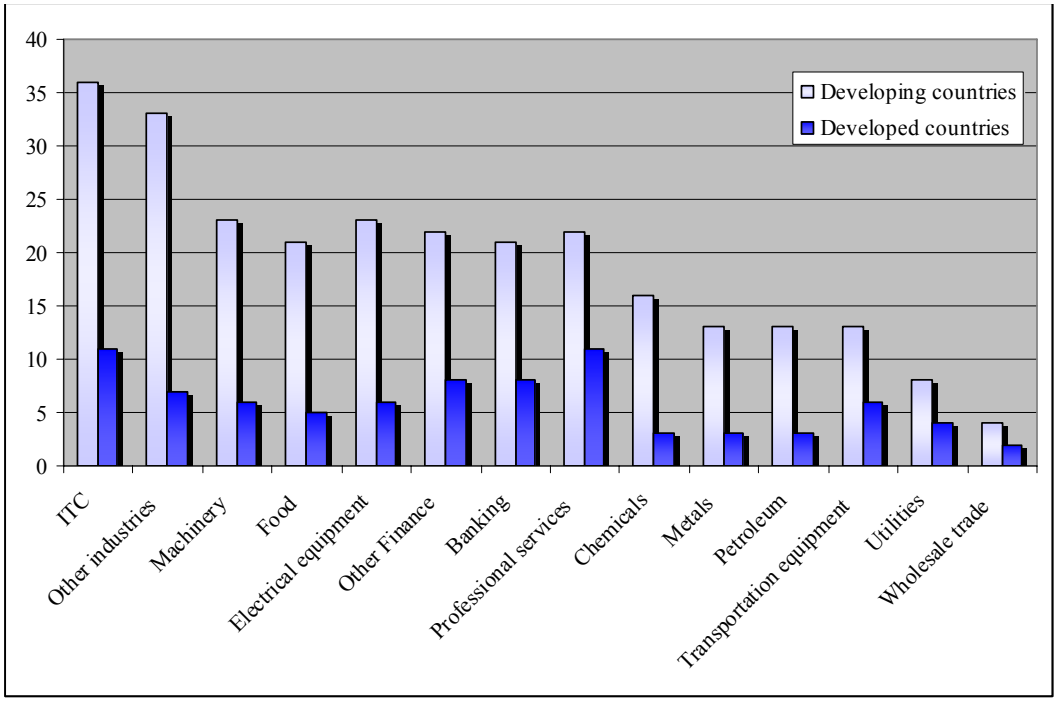
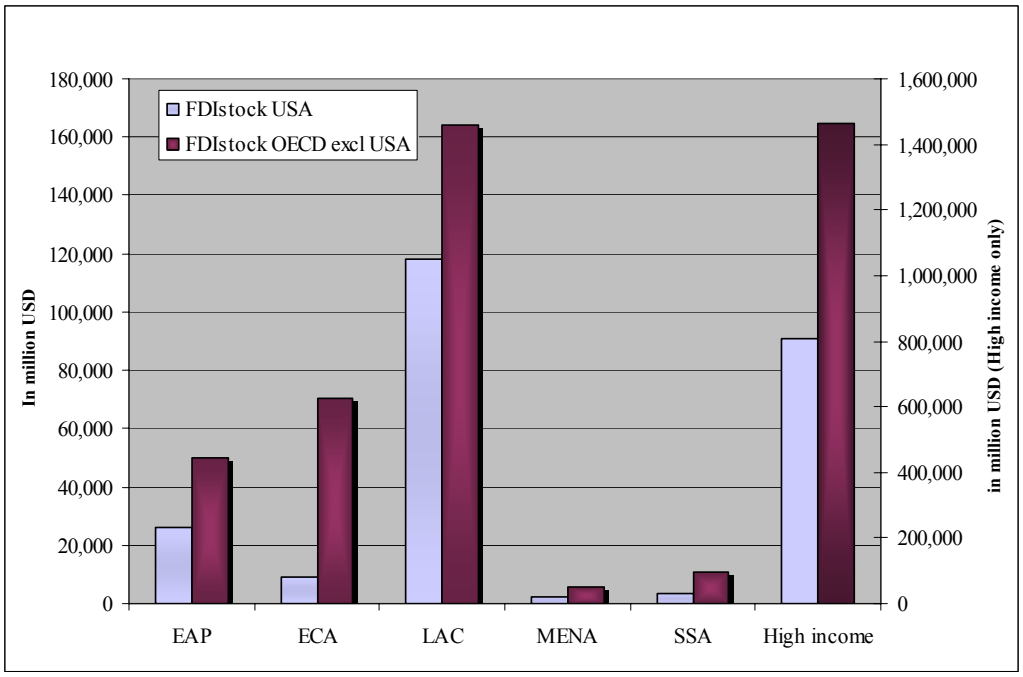


Figure 2: Frequency of targeting by sector



Note: Figure based on data actually used in the estimations (country-sectors for which perfect timing was given).

Figure 3: US FDI stock versus FDI stock from other OECD countries in year 2000



Note: Figure based on bilateral OECD data, FDI stocks in million USD, year 2000. Regional breakdown corresponds to the World Bank classification of developing countries: Latin American and the Caribbean (LAC), East Asia and the Pacific (EAP), Europe and Central Asia (ECA), Sub-Saharan Africa (SSA), South Asia (SA) and Middle East and North Africa (MENA). High income countries do not include the US.

Figure 4: Donor participation in IPA funding